

1066

ACIDIC PRECIPITATION
IN ONTARIO STUDY

CUMULATIVE (28 DAY)
PRECIPITATION CHEMISTRY LISTING
1987

JULY 1990



Ontario

Environment
Environnement

Jim Bradley, Minister/ministre

ACIDIC PRECIPITATION IN ONTARIO STUDY
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1987

Report Prepared by:
Atmospheric Research and Planning Unit
Air Resources Branch
Ontario Ministry of the Environment

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This report was prepared by Diane Green of the APIOS Atmospheric Deposition and Chemistry Program. However, the data themselves are a product of the combined efforts of many individuals. Precipitation samples were collected by a large number of site operators, whose names cannot be individually mentioned here, under the coordination of the APIOS environmental technicians Scott Kennedy (in the Southwestern Region), Steve Elliott (in Southeastern Region), Wim Smits (in Northwestern Region), Bill Trayling (Northeastern Region), and J.P. Varto (in Central Region). Sample handling was carried out by Sue Lampinen and Gail Fielding. Chemical analyses were performed at the Laboratory Services Branch under the coordination of Frank Tomassini. Invaluable clerical and computer assistance were provided by Peter Maheras, Joseph Lamb and Roberto Banchon. All enquiries regarding the reported data should be directed to Neville Reid, Coordinator, Atmospheric Deposition and Chemistry Program, at (416) 326-1691.

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PART I

INTRODUCTION

INTRODUCTION

The data listed herein are a summary of the results acquired from the APIOS cumulative precipitation sampling network from January 1, 1987 to December 31, 1987. The sampler utilized for collection of wet cumulative deposition is the M.I.C. Type "A" collector (Sangamo). During May to October when precipitation is mainly in the form of rain, the Sangamo collector is equipped with a 34 cm x 61 cm polyethylene bag insert. For snow and snow/rain collection from November to April, deeper collection vessels are utilized (122 cm) with 34 cm x 122 cm polyethylene gas insert. The deeper collection vessel is utilized to reduce snow blow out. The period of accumulation per sample is 28 days.

All data presented in this report have been screened for validity. Remarks and qualifications have been appended to records, and/or results where necessary. The screening procedure involved checking each record for chemical analysis integrity (e.g. ionic balance, observed vs. theoretical conductance). Gross limits checks were applied to the results. Upper limits were determined as $M + 2S$ where median (M) and scale (S) represent robust estimates of the mean and standard deviation respectively. Scale of the distribution was estimated from interquartile distance, i.e. $S = 0.74$ (3rd quartile - 1st quartile) based upon logarithmic transformed results. In a situation where the distribution is significantly bounded by reported detection limits, S may be estimated as follows, $S = 1.48$ (3rd quartile - 2nd quartile). Lower gross limits were specified by the above method except for those parameters with minimum values near or at the detection limits (Cl, Mg, K, Na, Ph, Mn, Ni, Pb, V, Al, Cu, Zn, Fe, Cd). For these parameters a lower gross limit of zero was utilized. The data were also screened for outliers statistically by applying the Dixon Ratio test to the highest and lowest values observed in each region on a monthly basis. Outliers were determined at the 95% level of confidence. Records and/or results deemed unreliable are flagged but not deleted. Detailed description of the validation procedures as applied to this data set is available from the Ministry upon request.

Station Identification

The station identification is defined by four descriptive fields (e.g., Dorset/Cumulative/Wet #20). The first field refers to the sampling location. The second and third fields describe the sampling interval and the sampling type (e.g., wet or dry) respectively. The last numeric field refers to the index code utilized on the location map. All precipitation chemistry listings are given in alphabetical order by station name within each region.

Cumulative Precipitation Chemistry Listings

Sample type, as coded in the data listings, represents the state of the collected sample at time of removal. The sample date represents the date on which the sample was removed from the sampler. All chemical analyses were done on unfiltered samples. Lab pH entries represent pH measurements obtained at the MOE Laboratory in Toronto.

Total hydrogen ion concentration is reported for either titration of the sample with NaOH to an end point pH of 8.3 or gran analysis titration. For a complete outline of lab analytical methodology please consult the Ontario Ministry of the Environment report "Outlines of Analytical Methods" coordinated by Water Quality Section, Laboratory Services Branch, June 1981.

Of the reported metals, aluminum, copper, iron and zinc were found to display significant adsorptive losses. As a result, a leach solution of 5% HNO₃ (1 litre) is placed in the emptied collection bag for 24 hours. The leach solution is then analysed for the above metals and a final metal concentration is then calculated. Prior to 1987, in the calculation of final metal concentration, if a detection limit <T was encountered, a value corresponding to one half the detection limit was utilized. As of 1987, <T values are no longer halved in these calculations.

Co-located with each sampler is a cumulative precipitation gauge which serves as a primary standard of precipitation during the collection period. However, if the cumulative gauge depth is missing or is thought to be inaccurate, then an approximate precipitation depth is determined. The approximation is made by accumulating the surrounding CLIMAT* station daily depth gauge results individually and then interpolating using a modified kriging method (1) to the APIOS station. Sometimes precipitation gauge results cannot be calculated by the above method, in which case the data are missing in the tables to follow.

Calculation of Equivalent Precipitation Depth (mm)

$$\text{Equivalent Precipitation Depth (mm)} = \frac{\text{Volume Collected (ml)} \times 30.8}{1000}$$

Calculation of Observed Sampling Efficiency

$$\% \text{ Efficiency} = \frac{\text{Equivalent Precipitation Depth (mm)} \times 100 \%}{\text{Gauge Depth (mm)}}$$

Field Comment Code Index

A - Insects in sample
B - Leaves in sample
C - Particulates in sample
D - Fibres in sample
E - Sample not submitted
F - Sampler malfunctioned
G - Sample spilled or leaked
H - Volume incorrect
I - Event(s) missed
J - Wet side open when not precipitating
K - No precipitation collected
L - Part of event missed
M - Dry side open when precipitating
P - Gauge depth incorrect
Q - Other

Office Comment Code Index

C - calculated/observed conductance discrepancy
H - calculated/observed pH discrepancy
J - pH large
M - poor ionic balance
N - abnormal sampler efficiency
T - free hydrogen exceeds total hydrogen
X - sample lost

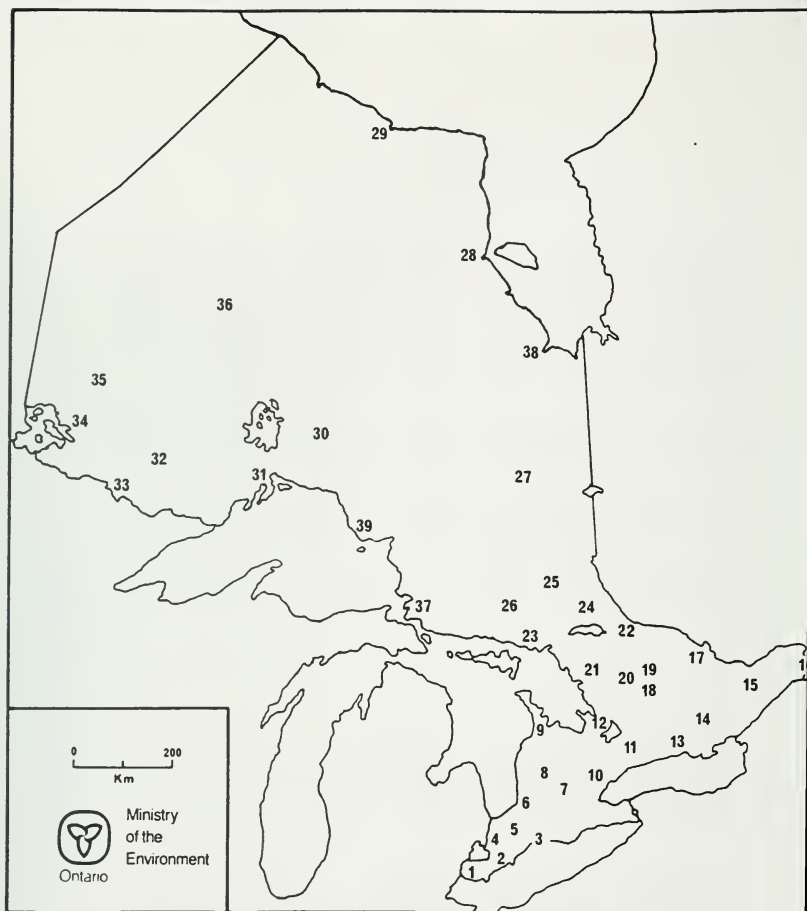
- (1) Spatial Trend Analysis and Uncertainly Estimates of Acid Deposition Data in Ontario, A.J.S. Tang and W.H. Chan, reprint #85-6A.6, 78th Air Pollution Control Association Annual Meeting, Detroit, Michigan, June 16-18, 1985.

Analytical Result Remark Code Index

> - actual result greater than value reported
< - actual result less than value reported
T - actual result less than criterion of detection
W - no response, minimum possible result reported
A - approximate value
U - unreliable result
L - bag leach result not available
<L - bag leach result not available and precipitation sample result has been reported as a detection limit
LG - exceedance of lower gross limit checks
UG - exceedance of upper gross limit checks
D - outlier of Dixon Ratio Test
B - exceedance of gross limit checks and outlier of Dixon Ratio Test

PART II

STATION DESCRIPTION AND LOCATION MAP



- | | | |
|---------------------|-----------------------|-----------------------------|
| 1. Colchester* | 15. Smith's Falls* | 29. Winisk (rem. Dec '86) |
| 2. Merlin | 16. Dalhousie Mills* | 30. Geraldton (replaced |
| 3. Pt. Stanley* | 17. Golden Lake* | Nakina, Aug '83) |
| 4. Wilkesport* | 18. Wilberforce | 31. Dorion* |
| 5. Alvinston | 19. Whitney | 32. Quetico Centre* |
| 6. Huron Park | 20. Dorset* | 33. Lac la Croix |
| 7. Waterloo | 21. McKellar* | 34. Experimental Lakes Area |
| 8. Palmerston* | 22. Mattawa* | 35. Ear Falls* |
| 9. Shallow Lake* | 23. Killarney* | 36. Pickle Lake* |
| 10. Milton (removed | 24. Bear Island | 37. Turkey Lake* |
| March '84) | 25. Gowanda* | 38. Moosonee* (installed |
| 11. Uxbridge* | 26. Azure Lake (repl. | October '85) |
| 12. Coldwater | Ramsey, June '83) | 39. Otter Island* |
| 13. Campbellford* | 27. Moonbeam* | (summer only) |
| 14. Cloyne* (repl. | 28. Attawapiskat | 40. Sutton, Quebec |
| Kalladar, June '83) | (rem. Feb '84) | (Intercomparison |
| | | Site) |

* indicates both a wet and dry deposition network site

ONTARIO MINISTRY OF THE ENVIRONMENT
APROS-ACIDIC PRECIPITATION IN ONTARIO STUDY
CUMULATIVE PRECIPITATION SITES

STATION ID	MOE REGION	STATION NAME	ELEV (M)	LATITUDE (NORTH)	LONGITUDE (WEST)	UTM GRID CO-ORDINATES (NORTHING) (EASTING)
000001-01-01-1041	SOUTHWESTERN	COLCHESTER	183	41°59'15"	82°55'41"	4649973 340284
000001-01-01-1051	SOUTHWESTERN	MERLIN	191	42°14'47"	82°13'28"	4677645 398983
000001-01-01-1061	SOUTHWESTERN	PORT STANLEY	213	42°40'22"	81°09'55"	4724277 486457
000001-01-01-1071	SOUTHWESTERN	WILKESPORT	183	42°21'11"	82°21'13"	4728515 389135
000001-01-01-1081	SOUTHWESTERN	ALVINGTON	221	42°49'00"	81°50'05"	4740580 341759
000001-01-01-1091	SOUTHWESTERN	SHALLLOW LAKE	229	44°34'54"	81°06'58"	4936270 490782
000001-01-01-1101	SOUTHWESTERN	PALMERSTON	389	43°48'19"	80°54'12"	4850035 507776
000001-01-01-1191	SOUTHWESTERN	HURON PARK	250	43°17'28"	81°30'03"	4793050 459370
000001-01-01-2021	SOUTHWESTERN	WATERLOO	343	43°28'39"	80°35'10"	4813710 533474
000001-01-01-3011	CENTRAL	DORSET	320	45°13'26"	78°55'50"	5009656 662429
000001-01-01-3061	CENTRAL	UXBRIDGE	244	45°12'46"	79°12'38"	4896847 642958
000001-01-01-3071	CENTRAL	WILBERFORCE	396	45°00'54"	78°12'56"	4988172 719406
000001-01-01-3081	CENTRAL	CAMPBELLFORD	175	44°17'28"	77°47'33"	4907783 277202
000001-01-01-3101	CENTRAL	COLDWATER	280	44°37'31"	79°32'08"	4942152 616174
000001-01-01-4061	SOUTHEASTERN	SMITH'S FALLS	122	44°56'41"	75°57'48"	4977044 423999
000001-01-01-4071	SOUTHEASTERN	DALHOUSIE MILLS	69	45°19'00"	74°28'13"	5018048 541521
000001-01-01-4081	SOUTHEASTERN	GOLDEN LAKE	160	45°36'48"	77°12'03"	5053226 328397
000001-01-01-4091	SOUTHEASTERN	CLOYNE	259	44°49'10"	77°11'07"	4964999 327221
000001-01-01-4161	SOUTHEASTERN	PT. PETRE	84	43°50'20"	77°09'10"	4856016 326930
000001-01-01-5011	NORTHEASTERN	MCKELLAR	244	45°31'15"	79°55'19"	5041158 584196
000001-01-01-5021	NORTHEASTERN	KILLARNEY	183	45°58'20"	81°29'18"	5090859 462167
000001-01-01-5031	NORTHEASTERN	MATTAWA	198	46°16'39"	78°49'19"	5126968 667810
000001-01-01-5041	NORTHEASTERN	BEAR ISLAND	305	46°58'22"	80°04'30"	5203336 570362
000001-01-01-5061	NORTHEASTERN	GOONDA	343	49°39'04"	80°46'32"	5277329 516647
000001-01-01-5071	NORTHEASTERN	MOONBEAM	244	49°19'40"	82°01'10"	5464175 425924
000001-01-01-5091	NORTHEASTERN	WHITNEY	412	45°32'21"	78°15'35"	5046283 713946
000001-01-01-5141	NORTHEASTERN	TURKEY LAKES	440	47°03'15"	84°24'20"	5214246 697468
000001-01-01-5151	NORTHEASTERN	AZURE LAKE	427	47°28'13"	81°52'30"	5257579 434062
000001-01-01-5161	NORTHEASTERN	MOOSENEE	8	51°12'35"	80°42'20"	5672970 520568
000001-01-01-6011	NORTHWESTERN	DORION	244	48°50'33"	88°36'45"	5410982 381684
000001-01-01-6031	NORTHWESTERN	EAR FALLS	350	50°38'31"	93°13'13"	5609814 484424
000001-01-01-6041	NORTHWESTERN	PICKLE LAKE	360	51°02'41"	90°12'04"	5658308 696198
000001-01-01-6061	NORTHWESTERN	LAC LA CROIX	368	48°21'14"	92°12'32"	5355719 558611
000001-01-01-6071	NORTHWESTERN	QUETICO CENTRE	420	48°24'44"	91°27'08"	5363461 633036
000001-01-01-6091	NORTHWESTERN	E.L.A.	123	49°39'50"	93°43'16"	5501292 447960
000001-01-01-6111	NORTHWESTERN	OTTER ISLAND	204	48°06'50"	86°04'25"	5329155 568954
000001-01-01-6121	NORTHWESTERN	GERALDTON	350	49°48'18"	86°45'52"	5516758 516950
000001-01-01-7011	QUEBEC	SUTTON	243	45°04'35"	72°40'35"	4993846 682898

PART III

CENTRAL REGION CUMULATIVE AMBIENT AIR CONCENTRATION RESULTS



ONTARIO MINISTRY OF THE ENVIRONMENT
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
DATA LISTING
CUMULATIVE SAMPLING ANALYSIS RESULTS

REGION-CE STATION-CAMPBELLFORD MIC TYPE A SITE NO.1													
SAMPLE NUMBER	SUBMISSION NUMBER	SAMPLE TYPE	PROJECT CODE	PROJECT SUB CODE	PROJECT COL	SAMPLE REMOVAL DATE	EXPOSURE DATE	END DATE	START TIME AT HR	SAMPLE PREC. AT HR	PREC. AT REM.	GAUGE DEPTH (MM)	EFFICIENCY %
00024587	AP02121	PR	02	01	JAN 27, 1987	DEC 30, 1986	0930	1625	3	2	44.0	56.63	
00024598	AP02173	PR	02	01	FEB 24, 1987	JAN 27, 1987	1715	0930	2	2	20.0	63.29	
00024599	AP02203	PR	02	01	MAR 24, 1987	FEB 24, 1987	1445	1715	3	3	32.0	56.79	
00024600	AP02203	PR	02	01	APR 21, 1987	MAR 26, 1987	1835	1830	3	9	100.8	72.81	
00024616	AP02457	PR	02	01	MAY 19, 1987	APR 21, 1987	1600	1835	1	0	50.0	84.82	
00024635	AP02255	PR	02	01	JUN 16, 1987	MAY 19, 1987	1706	1800	1	2	50.0	96.22	
00069011	AP02374	PR	02	01	JUL 14, 1987	JUN 16, 1987	1620	1706	1	0	57.0	89.21	
00069021	AP02374	PR	02	01	AUG 11, 1987	JUL 14, 1987	2030	1620	1	0	90.0	72.76	
00069025	AP02374	PR	02	01	SEP 14, 1987	AUG 11, 1987	1845	2030	1	3	55.0	73.36	
00094330	AP02457	PR	02	01	OCT 6, 1987	SEP 8, 1987	1845	1845	1	3	50.0	83.28	
00094376	AP02457	PR	02	01	NOV 3, 1987	OCT 6, 1987	1700	1845	1	1	50.0	83.28	
00094376	AP02457	PR	02	01	DEC 31, 1987	NOV 3, 1987	1825	1700	1	2	76.0	104.80	
00094376	AP02457	PR	02	01	DEC 31, 1987	DEC 1, 1987	2050	1830	1	2	61.0	68.26	
CONDUCT													
LAB-PH													
ACIDITY.TFE													
SULFATE													
NITRATE													
CALCIUM													
MG/L													
UNHO/CM													
00024587	809					30.30	4.21	****		1.30	0.74	0.18	
00024598	411				D	41.50	4.11	****		3.30	1.18	0.56	
00024599	590					23.00	4.22	****		1.65	0.49	0.08	
00024600	F	Z				20.00	4.34	****		2.20	0.35	0.12	
00024616	C					35.50	4.24	****		4.20	0.86	0.64	
00024635	C					55.85	3.91	****		6.15	1.00	0.58	
00069011	2015					37.50	4.13	****		4.45	0.56	0.18	
00069021	1651					19.00	4.22	****		5.55	0.62	0.60	
00069025	HCM					56.00	4.44	****		2.65	0.43	0.18	
00094383						38.00	4.14	****		4.65	0.58	0.44	
00094390						42.00	4.05	****		3.15	0.94	0.30	
00094376						25.86	4.21	****		1.50	0.32	0.24	
00094376					Z	19.50	4.62	****		2.30	0.61	0.22	

ONTARIO MINISTRY OF THE ENVIRONMENT
 APFOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 DATA LISTING
 CUMULATIVE SAMPLING ANALYSIS RESULTS

REGION-CF. STATION-CAMPBELLFORD MIC TYPE A SITE NO. 1

SAMPLE NUMBER	CHLORIDE MG/L	KJELDAHL MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	PHOSPHOR MG/L	MANGANESE MG/L
00024587	0.22	0.240	<T	0.010	0.085	0.135	<T	0.007
00024598	0.54	0.920	<T	0.050	0.315	0.810	0.017	0.004
00024599	0.20	0.100	<T	0.005	0.060	0.050	<W	0.002
00024600	0.21	0.300	<T	0.015	0.040	0.220	<T	0.005
00024616	0.18	0.620	0.100	0.040	0.030	0.570	<T	0.009
00024635	0.20	0.750	0.085	0.085	0.045	0.900	<W	0.002
00069011	0.17	0.370	0.025	0.005	0.030	0.360	<T	0.003
00069021	0.17	0.530	0.085	0.040	0.020	0.565	<W	0.002
00069025	0.15	0.800	0.085	0.040	0.020	0.740	<T	0.006
00084320	0.16	0.490	0.050	0.025	0.050	0.460	<T	0.003
00084390	0.17	0.400	0.035	0.015	0.030	0.370	<T	0.002
00094374	0.13	0.200	0.030	<T	0.050	0.180	<W	0.008
00094376	0.25	0.260	0.020	<T	0.115	0.210	<T	0.013
SAMPLE NUMBER	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINIUM	COPPER	ACIDITY GRAN
00024587	0.0002	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L
00024598	0.0007	1DT	0.014	1DT	0.004	0.078	1DT	0.0010
00024599	<	1DT	0.036	1DT	0.007	0.047	1DT	0.0019
00024600	<	<	0.021	<	0.004	0.019	1DT	0.0006
00024616	0.0005	<	0.009	<	0.004	0.014	1DT	0.0007
00024635	<	1DT	0.006	1DT	0.006	0.040	1DT	0.0007
00069011	0.0002	1DT	0.004	D	<	0.004	1DT	0.0018
00069021	0.0006	1DT	0.001	0.016	<	0.004	1DT	0.0003
00069025	0.0007	1DT	0.014	0.013	<	0.004	1DT	0.0006
00084320	0.0004	1DT	0.036	1DT	<	0.004	1DT	0.0006
00084390	0.0002	1DT	0.004	1DT	<	0.004	1DT	0.0002
00094374	<	1DT	0.009	1DT	<	0.004	1DT	0.0002
00094376	0.0003	1DT	0.009	1DT	<	0.004	1DT	0.0008

ONTARIO MINISTRY OF THE ENVIRONMENT
 APLOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 DATA LISTING
 CUMULATIVE SAMPLING ANALYSIS RESULTS

SAMPLE NUMBER	SUBMISSION NUMBER	LIS. SAMPLE TYPE	PROJECT SUB CODE	SAMPLE REMOVAL DATE	EXPOSURE DATE	REGION-CE STATION-COLDWATER MIC TYPE A SITE NO.1				PREC. AT REM.	PREC. AT EXP.	GAUGE DEPTH (MM)	EFFICIENCY %
						END HR	START HR	TYPE	AT				
00029638	AF02135	PR	02	JAN 27, 1987	DEC 30, 1986	0730	0800	2				21.0	164.12
00029647	AF02173	PR	02	FEB 24, 1987	JAN 27, 1987	0730	0730	3				79.0	28.85
00029654	AF02173	PR	02	MAR 24, 1987	FEB 24, 1987	0730	0730	3				34.0	88.32
00029663	AF02203	PR	02	APR 21, 1987	MAR 24, 1987	0745	0730	3				87.0	57.17
00029672	AF02226	PR	02	MAY 19, 1987	APR 21, 1987	0730	0745	1				36.0	65.38
00029679	AF02238	PR	02	JUN 16, 1987	MAY 19, 1987	0700	0730	1				111.0	94.06
00029689	AF02279	PR	02	AUG 14, 1987	JUN 16, 1987	0730	0730	1				39.0	9.71
00076003	AF02319	PR	02	SEP 8, 1987	AUG 14, 1987	0745	0745	1				32.8	83.20
00076006	AF02344	PR	02	OCT 6, 1987	SEP 8, 1987	0730	0745	1				66.0	101.31
00076030	AF02383	PR	02	NOV 3, 1987	OCT 6, 1987	0745	0730	3	1			75.0	87.92
00076037	AF02572	PR	02	DEC 1, 1987	NOV 3, 1987	0800	0745	3	1			128.0	75.39
00076043	AF02439	PR	02	DEC 30, 1987	DEC 1, 1987	1520	0800	3				68.0	85.24
CONDUCT													
LAB.PH													
ACIDITY.TFE													
SULFATE													
MG/L													
NITRATE													
MG/L													
CAIUM													
MG/L													
00029638	G	HCM	1119	17.90	4.26	****	****	1.05	0.49			0.14	
00029647	N		740	34.00	4.21	****	****	2.35	1.09			0.32	
00029654			975	17.50	4.36	****	****	1.30	0.31			<T	
00029663	AO		1615	25.00	4.27	****	****	2.40	0.54			0.12	
00029672			998	32.28	UG	****	****	6.75	0.67			0.78	
00029679			1552	47.00	4.06	****	****	5.55	0.81			0.50	
00029689	G		3390	16.90	4.80	****	****	2.55	0.40			0.28	
00029697	Z		123	17.10	4.61	****	****	3.85	0.30			0.30	
00076003	Z		516	40.00	6.98	****	****	4.55	0.55			0.32	
00076006	RM		2176	40.00	B	****	****	4.55	0.52			1.22	
00076030			2141	****	****	****	****	****	****			****	
00076037			3133	14.00	4.65	****	****	1.20	0.30			<T	
00076043			1882	19.50	4.41	****	****	1.40	0.45			0.12	

ONTARIO MINISTRY OF THE ENVIRONMENT
 APYOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 DATA LISTING
 CUMULATIVE SAMPLING ANALYSIS RESULTS

REGION-CE STATION-COLDWATER MIC TYPE A SITE NO.1

SAMPLE NUMBER	CHLORIDE MG/L	KJELDAHL MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	PHOSPHOR MG/L	MANGANESE MG/L
00029638	0.25	0.240	<T	0.020	0.080	0.210	<T	0.006
00029647	0.35	0.180	0.010	<T	0.010	0.210	<T	<T
00029654	<T	0.120	<T	0.005	0.040	0.030	<T	0.005
00029663	0.22	0.240	<T	0.020	0.045	LG	0.010	<T
00029672	0.18	3.150	0.180	UG	0.055	U	0.285	0.008
00029679	0.10	0.810	0.080	0.055	0.030	U	0.900	0.005
00029689	0.10	1.010	0.055	D	0.120	0.540	D	0.058
00029697	0.01	115	0.060	0.035	0.030	0.210	115	0.004
00029705	<W	0.350	0.055	0.050	0.035	0.300	D	0.010
00029706	0.16	B	1.490	B	0.075	2.850	D	0.485
00029703	0.04	0.230	<T	0.005	D	0.200	<W	0.002
00029704	<T	0.04	<T	0.010	0.045	0.125	<T	0.002
00029703	0.11	21NC	0.160	LEAD	0.005	ALUMINUM	COOPER	ACIDITY GRAN
00029638	< 0.0002	D	0.007	MG/L	MG/L	MG/L	MG/L	UG/L
00029647	0.0003	1DT	0.009	1DT	0.002	0.017	0.0008	70.70
00029654	0.0002	1DT	0.002	1DT	0.005	0.031	1DT	86.90
00029663	0.0002	1DT	0.002	0.014	<	0.004	1DT	82.00
00029672	< 0.0002	1DT	0.007	UG	0.003	0.019	0.0028	86.80
00029679	< 0.0004	0.003	0.040	1DT	0.002	0.098	1DT	26.90
00029689	0.0002	1DT	0.007	0.029	<	0.004	0.051	108.00
00029697	0.0002	1DT	0.011	UG	0.006	0.022	0.0004	36.80
00029705	< 0.0002	1DT	0.002	1DT	<	B	0.335	44.20
00029706	0.0002	1DT	0.002	0.022	0.011	0.102	<	90.60
00029703	INR	0.008	INR	1DT	0.001	0.072	INR	50.60
00029703	<W	<	0.004	<W	<	0.008	0.0012	D
00029703	< 0.0002	<	0.002	0.001	<	0.004	1DT	39.60
00029704	< 0.0002	<	0.010	0.008	<	0.004	0.0020	71.60

ONTARIO MINISTRY OF THE ENVIRONMENT
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 DATA LISTING
 CUMULATIVE SAMPLING ANALYSIS RESULTS

REGION-CE STATION=DORSET MIC TYPE A SITE NO.1												
SAMPLE NUMBER	SAMPLE SUBMISSION TYPE	LIS SAMPLE CODE	PROJECT CODE	SAMPLE REMOVAL DATE	EXPOSURE DATE	END HR	SAMPLE START HR	PREC. TYPE AT EXP	PREC. GAUGE DEPTH (MM)	EFFICIENCY %		
00029634	PR	02	01	JAN 27, 1987	DEC 30, 1986	0820	1340	2	24.0	77.77		
00029644	PR	02	01	FEB 24, 1987	JAN 27, 1987	1230	0820	2	43.0	59.67		
00029651	PR	02	01	MAR 24, 1987	FEB 24, 1987	1000	1230	3	22.0	75.04		
00029657	PR	02	01	APR 21, 1987	MAR 24, 1987	0950	1000	3	88.0	74.86		
00029666	PR	02	01	MAY 19, 1987	APR 21, 1987	0930	0950	1	3	48.0		
00029676	PR	02	01	JUN 16, 1987	MAY 19, 1987	0915	1045	1	3	62.0		
00029684	PR	02	01	JUL 14, 1987	JUN 16, 1987	1115	0915	1	3	48.0		
00029691	PR	02	01	AUG 11, 1987	JUL 14, 1987	0930	0930	1	3	57.0		
00029699	PR	02	01	SEP 8, 1987	AUG 11, 1987	1030	0930	1	3	108.71		
00076002	PR	02	01	OCT 6, 1987	SEP 8, 1987	0930	1030	1	3	66.0		
00076009	PR	02	01	NOV 3, 1987	OCT 6, 1987	0836	0930	3	2	90.0		
00076016	PR	02	01	DEC 1, 1987	NOV 3, 1987	0910	0836	3	2	92.74		
00076034	PR	02	01	DEC 29, 1987	DEC 1, 1987	1000	0910	3	2	81.60		
00076040	PR	02	01	CONDUCT	LAB.PH	ACIDITY.TPE	SULFATE	NITRATE	CALCIUM	69.58		
ML												
00029634			606	30.30	4.24	****	1.55	0.77	MG/L	0.16		
00029644		933		29.30	4.23	****	1.40	0.88		0.20		
00029651		536		15.50	4.41	****	1.05	0.28	<T	0.02		
00029657		2139		21.00	4.33	****	1.90	0.41	UG	0.14		
00029666		2445		35.67	4.36	****	5.50	0.88		0.96		
00029676		2143		51.48	3.95	****	5.40	0.79		0.44		
00029684		1999		22.40	4.38	****	2.25	0.35		0.18		
00029691		600		37.00	4.12	****	3.60	0.66		0.26		
00029699		1805		40.50	4.05	****	4.10	0.56	D	0.52		
00076002		2254		35.00	4.23	****	3.60	0.45		0.26		
00076009		2710		32.00	4.21	****	3.50	0.82		0.46		
00076016		2040		22.00	4.41	****	1.75	0.54		0.20		
00076034		2214		15.50	4.50	****	1.05	0.39	<T	0.04		
00076040		G										

ONTARIO MINISTRY OF THE ENVIRONMENT
 APTOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 DATA LISTING
 CUMULATIVE SAMPLING ANALYSIS RESULTS

REGION-CE STATION-DORSET MIC TYPE A SITE NO.1

SAMPLE NUMBER	CHLORIDE MG/L	KJELDHAL MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	PHOSPHOR MG/L	MANGANESE MG/L
00029634	0.18	0.320	<T	<T	0.015	0.065	<T	0.002
00029644	0.25	0.480	<T	<T	0.005	0.100	0.013	0.002
00029651	0.21	0.130	<T	<T	0.005	<W	0.028	< 0.001
00029657	0.07	0.000	<T	<T	0.030	0.220	0.011	0.001
00029666	0.17	0.370	UG	0.175	0.070	1.040	0.012	UG 0.013
00029666	0.17	0.480	UG	0.060	0.035	0.735	<T	0.002
00029684	<T	0.270	0.030	<T	0.015	0.010	<W	0.002
00029691	0.05	0.360	0.045	0.035	0.030	0.265	<T	0.003
00029691	0.15	0.280	0.070	<T	0.020	0.290	<T	0.003
00076002	0.16	0.390	0.040	0.030	0.010	0.405	<T	0.002
00076009	0.07	0.520	0.050	0.035	UG	0.150	<T	0.004
00076016	0.25	0.370	<T	<T	0.010	0.445	<W	0.004
00076034	0.10	0.170	0.025	<T	0.025	0.145	<T	< 0.001
00076040	0.10	0.170	0.005	LEAD	0.005	0.145	COPPER	ACIDITY GRAN
SAMPLE NUMBER	NICKEL MG/L	ZINC MG/L	IRON MG/L	MG/L	MG/L	MG/L	MG/L	UG/L
00029634	< 0.0002	1DT 0.009	0.024	1DT 0.003	< 0.0004	0.044	0.0021	82.90
00029644	< 0.0002	1DT 0.009	0.018	1DT 0.004	< 0.0004	0.031	1DT 0.0011	59.00
00029651	< 0.0005	1DT 0.002	0.008	1DT 0.002	< 0.0004	1DT	1DT 0.0008	59.00
00029657	< 0.0005	< 0.001	0.012	1DT 0.001	< 0.0004	0.093	1DT 0.0005	72.20
00029666	< 0.0002	1DT 0.004	UG	0.002	< 0.0004	0.033	1DT 0.0011	69.80
00029676	< 0.0002	1DT 0.002	0.014	1DT 0.002	< 0.0004	0.022	1DT 0.0004	134.00
00029684	< 0.0002	1DT 0.003	0.019	1DT 0.003	< 0.0004	0.046	1DT 0.0004	62.80
00029691	< 0.0002	1DT 0.004	0.033	1DT 0.009	< 0.0004	1DT 0.015	< 0.0003	100.00
00076002	0.0036	1DT 0.004	0.020	1DT 0.006	< 0.0004	0.021	< 0.0010	118.00
00076009	0.0002	1DT 0.004	0.028	1DT 0.005	< 0.0004	0.021	< 0.0003	89.40
00076016	< 0.0003	1DT 0.002	0.012	0.015	< 0.0004	0.009	1DT 0.0003	87.50
00076034	< 0.0003	< 0.001	0.006	0.003	< 0.0004	< 0.007	1DT 0.0002	66.00
00076040	< 0.0003	< 0.001	0.006	0.003	< 0.0004	< 0.007	1DT 0.0002	56.90

ONTARIO MINISTRY OF THE ENVIRONMENT
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 DATA LISTING
 CUMULATIVE SAMPLING ANALYSIS RESULTS

----- REGION-CE STATION-UXBRIDGE MIC TYPE A SITE NO.1 -----

SAMPLE NUMBER	SUBMISSION NUMBER	IS TYPE	PROJECT CODE	SUB PROJECT CODE	SAMPLE REMOVAL DATE	EXPOSURE DATE	END HR	SAMPLE START HR	PREC. TYPE	PREC. AT EXP	GAUGE DEPTH (MM)	EFFICIENCY %
00040583	AP02121	PR	02	01	FEB 5, 1987	DEC 30, 1986	1145	1045	2		43.0	75.64
00040585	AP02135	PR	02	01	FEB 24, 1987	FEB 24, 1987	0625	1120	2		71.1	88.50
00040588	AP02133	PR	02	01	MAR 14, 1987	FEB 24, 1987	0625	1120	3		28.9	61.60
00040590	AP02102	PR	02	01	APR 21, 1987	MAR 24, 1987	0625	0625	3		62.6	67.75
00040655	AP02219	PR	02	01	MAY 19, 1987	APR 21, 1987	1005	0635	1		33.0	56.28
00040658	AP02238	PR	02	01	JUN 16, 1987	MAY 19, 1987	1020	1005	1		96.0	33.17
00040695	AP02255	PR	02	01	JUL 14, 1987	JUN 16, 1987	1000	1020	1	1	182.0	82.92
00040873	AP02279	PR	02	01	AUG 11, 1987	JUL 14, 1987	0640	1000	1	1	73.0	85.40
00040944	AP02309	PR	02	01	SEP 8, 1987	AUG 11, 1987	0715	0640	1		23.0	50.22
00084001	AP02374	PR	02	01	OCT 6, 1987	SEP 8, 1987	0700	0715	1		77.0	173.36
00084014	AP02397	PR	02	01	NOV 3, 1987	OCT 6, 1987	0510	0700	1	1	21.3	39.57
00084016	AP02430	PR	02	01	DEC 3, 1987	NOV 3, 1987	0625	0700	2	1	27.3	39.57
00084016	AP02430	PR	02	01	DEC 30, 1987	DEC 3, 1987	1330	0700	3		53.5	4.61
					CONDUCT	LAB PH	ACIDITY.TFE	SULFATE	NITRATE		CALCIUM	
					UNHO/CM			MG/L	MG/L		MG/L	
00040583	Z	1056			32.70	4.30	****	****	2.05	0.95	0.95	0.50
00040585	H2	204			34.10	D	4.73	****	3.60	1.36	1.36	1.52
00040588	FJ	578			20.00		4.57	****	2.80	0.82	0.82	0.82
00040622	AF	1377			21.00		7.22	****	3.70	0.82	0.82	0.82
00040622	ACDF	1033			34.98	UG	4.32	****	UG	11.20	1.10	2.56
00040638	G	4900			27.65		4.27	****	4.90	0.80	0.80	0.72
00040695	G	4900			27.65		4.27	****	2.90	0.50	0.50	0.34
00040873	A	2024			15.00	UG	5.56	****	2.85	0.40	0.40	0.70
00040944	C	375			22.00		4.80	****	3.80	0.63	0.63	1.12
00040957		1834			42.00		4.18	****	4.60	0.61	0.61	0.62
00084001	N	1521			32.00		4.27	****	3.25	0.71	0.71	0.32
00084014	NC	2868			8.00		4.69	****	1.30	0.28	0.28	0.16
00084016	N	80			15.50		4.53	****	2.40	0.21	0.21	0.44

[illegible]

ONTARIO MINISTRY OF THE ENVIRONMENT
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 DATA LISTING
 CUMULATIVE SAMPLING ANALYSIS RESULTS

REGION-CE STATION-WILBERFORCE MIC TYPE A SITE NO.1												
SAMPLE NUMBER	CHLORIDE MG/L	KJEIDAHL MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	PHOSPHOR MG/L	MANGANESE MG/L				
00029637	0.22	0.250	<T	0.010	<T	0.005	<T	0.006	0.001			
00029643	0.24	0.530	<T	0.020	<T	0.015	<T	0.012	0.002			
00029650	0.21	0.100	<T	0.005	<W	0.005	<T	0.030	<			
00029657	0.17	0.100	<T	0.005	<W	0.005	<T	0.030	0.001			
00029671	0.08	0.590	<T	0.105	0.040	0.040	<T	0.009	0.003			
00029680	0.17	0.610	0.025	0.025	0.030	0.635	<T	0.003	UG			
00029683	0.10	0.510	0.050	0.025	0.035	0.475	<W	0.002	0.004			
00029693	0.10	0.350	0.030	<T	0.010	0.310	<W	0.002	0.002			
00076004	0.07	0.380	0.025	<T	0.015	<T	0.020	0.005	0.001			
00076007	0.07	0.430	0.055	0.050	<T	0.405	<T	0.007	D			
00076015	0.15	0.390	0.025	<T	0.015	<T	0.020	0.002	0.004			
00076036	0.12	0.230	<T	0.020	<T	0.060	<W	0.002	<			
00076042	0.17	0.310	<T	0.005	0.065	0.130	<W	0.002	0.001			
SAMPLE NUMBER	NICKEL MG/L	ZINC MG/L	IRON MG/L	LEAD MG/L	VANADIUM MG/L	ALUMINIUM MG/L	COPPER		ACIDITY GRAM			
							MG/L	MG/L				
00029637	0.0003	1DT 0.007	0.019	1DT 0.003	<	0.0004	0.028	0.0019	73.30			
00029643	<	1DT 0.009	0.021	1DT 0.005	<	0.0004	0.030	0.0009	82.90			
00029650	0.0003	1DT 0.010	0.010	1DT 0.002	<	0.0004	1DT 0.011	1DT 0.0005	57.40			
00029660	<	1DT 0.001	0.009	<	0.001	<	0.0004	0.0008	64.00			
00029671	0.0004	1DT 0.003	0.029	1DT 0.003	<	0.0004	0.069	0.0008	179.40			
00029680	<	1DT 0.003	0.029	1DT 0.003	<	0.0004	0.069	0.0008	179.40			
00029683	0.0004	1DT 0.005	0.023	1DT 0.004	<	0.0004	0.053	0.0007	83.60			
00029693	0.0002	1DT 0.001	0.005	1DT 0.004	<	0.0004	1DT 0.003	1DT 0.0006	97.00			
00076004	<	1DT 0.002	0.014	0.011	<	0.0004	0.045	<	0.0004			
00076007	0.0002	0.005	0.026	0.005	<	0.0005	0.029	1DT 0.0010	86.30			
00076015	0.0004	1DT 0.002	0.019	0.004	<	0.0004	0.017	1DT 0.0004	92.40			
00076036	0.0010	<	0.013	UG	<	0.0004	0.008	1DT 0.0005	57.20			
00076042	0.0003	<	0.022	0.012	<	0.0004	0.013	0.0010	63.50			

PART IV

NORTHEASTERN REGION CUMULATIVE AMBIENT AIR CONCENTRATION RESULTS

ONTARIO MINISTRY OF THE ENVIRONMENT
LAKE ERIE ACIDIC PRECIPITATION IN ONTARIO STUDY
DATA LISTING
CUMULATIVE SAMPLING ANALYSIS RESULTS

REGION-NE STATION-AZURE LAKE MIC TYPE A SITE NO.1														
SAMPLE NUMBER	SUBMISSION NUMBER	LIS TYPE	PROJECT SAMPLE CODE	SUB PROJECT CODE	SAMPLE REMOVAL DATE	EXPOSURE DATE	END HR	SAMPLE START HR	PREC. AT EXP	PREC. AT REM.	GAUGE DEPTH (MM)	EFFICIENCY %		

ONTARIO MINISTRY OF THE ENVIRONMENT
APFOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
CUMULATIVE SAMPLING ANALYSIS RESULTS

REGION-NE STATION-AZURE LAKE MIC TYPE A SITE NO.1

SAMPLE NUMBER	CHLORIDE MG/L	KJELDAHL MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	PHOSPHOR MG/L	MANGANESE MG/L
00036487	0.20	0.525	<T	0.010	0.005	0.095	<T	0.023
00036577	0.32	0.120	<T	0.010	0.070	0.145	<T	0.018
00036663	0.15	0.220	<T	0.010	0.005	0.085	<T	0.004
00036749	<T	0.130	<T	0.005	0.025	0.110	<T	0.004
00036828	0.08	0.390	<T	0.015	0.045	0.320	<T	0.003
00036881	<T	1.000	UG	0.190	0.100	0.740	<W	0.042
00036957	<W	0.410	<T	0.010	0.045	0.365	<W	0.002
00037031	0.08	0.340	0.030	<T	0.020	0.265	<W	0.002
00037070	0.11	0.145	0.045	<T	0.035	0.200	<W	0.002
00037190	<W	0.180	<T	0.010	0.005	0.160	<W	0.002
00081047	0.01	0.170	<T	0.015	<T	0.135	<T	0.003
00081079	0.11	0.320	<T	0.020	<T	0.010	<T	0.002
00081103	0.08	0.100	<W	0.005	<T	0.070	<W	0.002
00081130	0.06	0.080	<W	0.005	<T	0.045	<W	0.002
NICKEL								
00036487	< 0.0002	1DT 0.003	0.032	1DT 0.004	< 0.0004	1DT	0.0027	66.70
00036577	< 0.0005	1DT 0.006	0.050	1DT 0.003	< 0.0004	0.063	0.0034	67.50
00036663	< 0.0002	< 0.002	0.026	0.004	< 0.0004	0.040	1DT 0.0009	38.10
00036749	< 0.0002	1DT 0.004	0.006	1DT 0.002	< 0.0004	0.029	1DT 0.0037	66.60
00036828	< 0.0002	< 0.002	0.013	1DT 0.002	< 0.0004	0.021	1DT 0.0019	77.40
00036881	0.0004	1DT 0.010	0.094	1DT 0.003	< 0.0004	0.099	0.0018	28.60
00036957	0.0002	1DT 0.005	0.095	1DT 0.001	< 0.0004	0.023	D	48.60
00037031	0.0002	1DT 0.009	0.040	1DT 0.003	< 0.0004	0.031	0.0038	73.60
00037070	0.0002	1DT 0.010	0.040	1DT 0.003	< 0.0004	0.019	1DT 0.0004	59.60
00037190	< 0.0002	1DT 0.001	0.008	1DT 0.010	< 0.0004	1DT	1DT 0.0007	66.30
00081047	< 0.0002	1DT 0.005	0.011	D	< 0.0007	0.019	1DT 0.0022	48.70
00081079	< 0.0002	1DT 0.034	0.020	1DT 0.010	< 0.0004	0.016	1DT 0.0025	62.40
00081103	< 0.0003	< 0.003	0.012	1DT 0.014	< 0.0004	< 0.013	1DT 0.0004	37.90
00081130	< 0.0002	< 0.002	0.010	0.006	< 0.0004	1DT 0.007	1DT 0.0024	54.70
COPPER								
00036487	< 0.0002	1DT 0.003	0.032	1DT 0.004	< 0.0004	1DT	0.0027	66.70
00036577	< 0.0005	1DT 0.006	0.050	1DT 0.003	< 0.0004	0.063	0.0034	67.50
00036663	< 0.0002	< 0.002	0.026	0.004	< 0.0004	0.040	1DT 0.0009	38.10
00036749	< 0.0002	1DT 0.004	0.006	1DT 0.002	< 0.0004	0.029	1DT 0.0037	66.60
00036828	< 0.0002	< 0.002	0.013	1DT 0.002	< 0.0004	0.021	1DT 0.0019	77.40
00036881	0.0004	1DT 0.010	0.094	1DT 0.003	< 0.0004	0.099	0.0018	28.60
00036957	0.0002	1DT 0.005	0.095	1DT 0.001	< 0.0004	0.023	D	48.60
00037031	0.0002	1DT 0.009	0.040	1DT 0.003	< 0.0004	0.031	0.0038	73.60
00037070	0.0002	1DT 0.010	0.040	1DT 0.003	< 0.0004	0.019	1DT 0.0004	59.60
00037190	< 0.0002	1DT 0.001	0.008	1DT 0.010	< 0.0004	1DT	1DT 0.0007	66.30
00081047	< 0.0002	1DT 0.005	0.011	D	< 0.0007	0.019	1DT 0.0022	48.70
00081079	< 0.0002	1DT 0.034	0.020	1DT 0.010	< 0.0004	0.016	1DT 0.0025	62.40
00081103	< 0.0003	< 0.003	0.012	1DT 0.014	< 0.0004	< 0.013	1DT 0.0004	37.90
00081130	< 0.0002	< 0.002	0.010	0.006	< 0.0004	1DT 0.007	1DT 0.0024	54.70
ACIDITY GRAM								
00036487	< 0.001	1DT 0.003	0.032	1DT 0.004	< 0.0004	1DT	0.0027	66.70
00036577	< 0.001	1DT 0.006	0.050	1DT 0.003	< 0.0004	0.063	0.0034	67.50
00036663	< 0.001	< 0.002	0.026	0.004	< 0.0004	0.040	1DT 0.0009	38.10
00036749	< 0.001	1DT 0.004	0.006	1DT 0.002	< 0.0004	0.029	1DT 0.0037	66.60
00036828	< 0.001	< 0.002	0.013	1DT 0.002	< 0.0004	0.021	1DT 0.0019	77.40
00036881	0.001	1DT 0.010	0.094	1DT 0.003	< 0.0004	0.099	0.0018	28.60
00036957	0.001	1DT 0.005	0.095	1DT 0.001	< 0.0004	0.023	D	48.60
00037031	0.001	1DT 0.009	0.040	1DT 0.003	< 0.0004	0.031	0.0038	73.60
00037070	0.001	1DT 0.010	0.040	1DT 0.003	< 0.0004	0.019	1DT 0.0004	59.60
00037190	< 0.001	1DT 0.001	0.008	1DT 0.010	< 0.0004	1DT	1DT 0.0007	66.30
00081047	< 0.001	1DT 0.005	0.011	D	< 0.0007	0.019	1DT 0.0022	48.70
00081079	< 0.001	1DT 0.034	0.020	1DT 0.010	< 0.0004	0.016	1DT 0.0025	62.40
00081103	< 0.001	< 0.003	0.012	1DT 0.014	< 0.0004	< 0.013	1DT 0.0004	37.90
00081130	< 0.001	< 0.002	0.010	0.006	< 0.0004	1DT 0.007	1DT 0.0024	54.70

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REGION-NE STATION-BEAR ISLAND MIC TYPE A SITE NO.1													
SAMPLE NUMBER	SUBMISSION NUMBER	LIS TYPE	PROJECT CODE	SUB CODE	PROJECT CODE	SAMPLE REMOVAL DATE	EXPOSURE DATE	SAMPLE END DATE	SAMPLE START HR	PREC. AT. TYPE	PREC. AT. EXP	PREC. GAUGE DEPTH (MM)	EFFICIENCY %
00036578	AF02121	PR	02	01	JAN 28, 1987	DEC 30, 1986	0907	1300	2	2	14.9	21.14	
00036664	AF02171	PR	02	01	FEB 25, 1987	JAN 28, 1987	1025	0907	2	2	107.0	59.66	
00036750	AF02179	PR	02	01	MAR 25, 1987	FEB 25, 1987	0920	1025	2	2	27.0	54.18	
00036882	AF02226	PR	02	01	APR 21, 1987	MAR 25, 1987	1405	0920	3	9	41.9	85.29	
00036883	AF02226	PR	02	01	MAY 19, 1987	APR 21, 1987	1440	1405	1	2	55.5	80.14	
00036958	AF02251	PR	02	01	JUN 17, 1987	MAY 19, 1987	1130	1440	1	3	68.0	85.29	
00037032	AF02279	PR	02	01	JUL 15, 1987	JUN 17, 1987	1000	1130	1	3	68.0	104.45	
00037091	AF02295	PR	02	01	AUG 14, 1987	JUL 15, 1987	1015	1000	1	9	94.0	50.20	
00037173	AF02319	PR	02	01	SEP 8, 1987	AUG 11, 1987	1538	1015	1	9	52.9	66.96	
00081048	AF02348	PR	02	01	OCT 6, 1987	SEP 8, 1987	0957	1538	1	9	84.6	79.73	
00081080	AF02392	PR	02	01	NOV 3, 1987	OCT 6, 1987	0957	1549	1	3	22.7	118.72	
00081080	AF02641	PR	02	01	DEC 1, 1987	NOV 3, 1987	0937	0957	2	1	68.5	22.71	
SAMPLE NUMBER	FIELD OFFICE COMMENTS	VOLUME ML	CONDUCT	LAB-PH	ACIDITY-TFE	SULFATE MG/L	NITRATE MG/L	CALCIUM MG/L	PREC. AT. TYPE	PREC. AT. REM.	PREC. GAUGE DEPTH (MM)	EFFICIENCY %	
00036578	GE	735	19.50	4.42	4.79	1.05	0.50	<T	1.05	1.05	0.50	0.08	
00036664	F	523	9.71	UG	4.03	0.55	1.05	0.14	0.55	1.05	0.14	0.12	
00036750	P	737	52.16	4.35	4.35	4.15	0.85	0.85	4.15	0.85	0.85	0.64	
00036882	P	1464	35.54	4.35	4.35	4.15	0.85	0.85	4.15	0.85	0.85	0.60	
00036958	PCD	1883	33.35	4.13	4.13	3.35	0.41	0.41	3.35	0.41	0.41	0.14	
00036958	D	2306	27.30	4.15	4.15	2.70	0.35	0.35	2.70	0.35	0.35	0.08	
00037032	ABCD	1532	13.00	4.65	4.65	1.65	0.55	0.55	1.65	0.55	0.55	0.18	
00037173	PA	1150	34.90	4.16	4.16	3.95	0.37	0.37	3.95	0.37	0.37	0.62	
00081048	PB	2190	28.00	4.35	4.35	2.85	0.58	0.58	2.85	0.58	0.58	0.54	
00081080	A	875	23.00	UG	5.17	0.40	1.05	0.10	0.40	1.05	0.10	0.02	
00081154	G	505	3.00	UG	5.17	0.40	1.05	0.10	0.40	1.05	0.10	0.02	

ONTARIO MINISTRY OF THE ENVIRONMENT
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
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 CUMULATIVE SAMPLING ANALYSIS RESULTS

REGION-NE STATION-BEAR ISLAND MIC TYPE A SITE NO.1											
SAMPLE NUMBER	CHLORIDE MG/L	KJELDAHL MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	PHOSPHOR MG/L	MANGANESE MG/L			
00036578	0.15	0.260	0.010	<T	0.015	0.070	0.165	<T	0.008	0.001	0.001
00036664	0.06	0.040	<T	<W	0.015	0.060	0.005	0.015	0.015	<	0.004
00036750	0.16	0.055	0.015	0.050	0.145	0.060	0.615	0.016	0.016	0.004	0.004
00036882	0.05	0.760	0.115	0.095	0.105	0.145	0.445	0.042	0.042	0.013	0.013
00036883	0.05	0.370	0.020	0.065	0.070	0.070	0.375	<T	0.002	0.001	0.001
00037032	<T	0.260	0.025	0.045	<T	0.010	0.215	<W	0.002	0.002	0.002
00037091	0.10	0.320	0.015	0.050	0.045	0.045	0.285	<T	0.008	0.001	0.001
00037173	0.03	0.220	0.035	0.090	<T	0.015	0.215	<T	0.002	0.001	0.001
00081048	<T	0.230	UG	0.375	0.075	0.075	0.050	0.104	0.104	0.006	0.006
00081080	0.12	0.380	0.075	<W	<W	0.115	0.080	<T	0.002	<	0.004
00081154	0.03	0.090	0.005	LEAD	0.005	0.005	0.080	<W	0.002	<	0.001
SAMPLE NUMBER	NICKEL MG/L	ZINC MG/L	IRON MG/L	LEAD MG/L	VANADIUM MG/L	ALUMINIUM MG/L	COPPER MG/L	ACIDITY GRAN UG/L			
00036578	0.0008	<	0.002	0.003	0.003	0.004	0.003	0.001	0.001	0.001	0.001
00036664	<	<	0.018	1DT	0.003	0.004	0.038	1DT	0.0061	60.80	60.80
00036750	<	0.002	0.012	<	0.003	<	0.056	1DT	0.003	30.80	30.80
00036882	0.0007	1DT	0.030	0.006	0.006	0.004	0.023	1DT	0.0049	119.00	119.00
00036883	0.0011	1DT	0.002	0.003	<	0.004	0.004	0.0019	0.0018	67.00	67.00
00036958	0.0005	1DT	0.013	1DT	<	0.004	0.020	0.0019	0.0019	85.10	85.10
00037091	0.0006	1DT	0.008	1DT	0.001	0.004	0.029	0.0009	0.0009	90.90	90.90
00037173	0.0027	1DT	0.014	<	0.002	0.004	0.016	1DT	0.0004	43.40	43.40
00081048	<	0.008	0.020	0.005	<	0.004	0.028	1DT	0.0092	94.10	94.10
00081080	<	0.010	0.012	1DT	0.001	0.004	0.015	1DT	0.0007	79.30	79.30
00081154	<	0.002	0.028	0.010	<	0.004	0.034	1DT	0.0016	97.80	97.80
	0.0004	<	0.010	1DT	0.014	<	0.015	<	0.0006	LG	28.50

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 APTOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
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REGION-NE STATION-GONGANDA MIC TYPE A SITE NO.1												
SAMPLE NUMBER	SUBMISSION NUMBER	LIS TYPE	PROJECT CODE	SUB PROJECT CODE	SAMPLE REMOVAL DATE	EXPOSURE DATE	END DATE	SAMPLE START HR	PREC. AT EXP.	PREC. AT REM.	GAUGE DEPTH (MM)	EFFICIENCY %
00036566	AF02121	PR	02	01	JAN 27, 1987	DEC 30, 1986	1010	1100	2	1	2	22.00
00036652	AF02167	PR	02	01	FEB 24, 1987	JAN 27, 1987	1430	1010	2	1	2	28.83
00036738	AF02179	PR	02	01	MAR 24, 1987	FEB 24, 1987	1015	1430	2	1	2	70.96
00036817	AF02203	PR	02	01	APR 21, 1987	MAR 24, 1987	0900	1015	1	1	2	71.35
00036870	AF02226	PR	02	01	MAY 12, 1987	APR 21, 1987	1645	0900	1	1	2	86.78
00036946	AF02251	PR	02	01	JUN 16, 1987	MAY 12, 1987	0900	1120	1	1	3	87.31
00037020	AF02279	PR	02	01	JUN 16, 1987	JUL 14, 1987	0910	1120	1	1	3	87.31
00037079	AF02295	PR	02	01	AUG 11, 1987	AUG 11, 1987	1130	0910	1	1	3	80.0
00037153	AF02318	PR	02	01	SEP 8, 1987	AUG 11, 1987	1217	1130	1	1	3	51.86
00081035	AF02348	PR	02	01	OCT 6, 1987	SEP 8, 1987	0950	1217	1	1	3	99.88
00081059	AF02392	PR	02	01	NOV 3, 1987	OCT 6, 1987	1030	0950	1	1	3	86.49
00081093	AF02413	PR	02	01	DEC 1, 1987	NOV 3, 1987	1000	1030	3	3	3	115.30
00081119	AF02430	PR	02	01	DEC 29, 1987	DEC 1, 1987	1010	1030	3	3	64.3	13.94
					CONDUCT	LAB.PH	ACIDITY.TFE	SULFATE	NITRATE	CALCIUM		
					UMHO/CM		MG/L	MG/L	MG/L	MG/L		
00036566	N	100			41.50	4.20	****	2.85	1.11	0.56		
00036652	N	234			24.00	4.33	****	1.65	0.24	<T		
00036738	C	198			22.50	4.56	****	1.00	0.26	<T		
00036817	C	736		UG	54.00	3.83	****	5.75	0.94	0.08		
00036870	H2	669			20.38	4.52	****	3.10	0.33	0.18		
00036946	HM2	1885			20.22	4.36	****	1.95	0.24	0.18		
00037020	AD	1389			19.50	4.53	****	1.95	0.35	0.10		
00037079		1387			35.00	4.64	****	1.50	0.20	<T		
00037153		4072			35.00	4.20	****	1.50	0.42	0.06		
00081035		876			27.50	4.31	****	3.25	0.20	0.16		
00081059		291			23.00	4.41	****	2.70	0.28	<T		
00081093	G	800	LG		8.00	4.88	****	2.25	0.44	0.32		
00081119	C	936			17.00	4.46	****	0.95	0.17	0.26		
00081119							****	1.10	0.34	<T		

ONTARIO MINISTRY OF THE ENVIRONMENT
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
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CUMULATIVE SAMPLING ANALYSIS RESULTS

REGION-NE STATION-GOMANDA MIC TYPE A SITE NO.1									
SAMPLE NUMBER	CHLORIDE MG/L	KJELDAHL MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	PHOSPHOR MG/L	MANGANESE MG/L	
00036566	UG	0.88	****	0.045	0.060	UG	0.720	0.305	115
00036652		0.24	<T	0.005	<T	0.010	0.170	0.210	0.025
00036736		0.10	<T	0.020	0.010	0.085	0.085	0.080	0.002
00036817		0.20	0.690	0.030	0.040	0.055	0.570	0.010	0.004
00036870	<W	0.01	0.480	0.100	0.055	0.070	0.385	0.010	0.004
00036946	<T	0.05	0.380	0.035	0.070	0.025	0.435	0.008	0.005
00037020		0.10	0.510	0.060	0.045	0.025	0.210	0.017	0.002
00037079	<W	0.01	<W	0.020	0.045	0.025	0.011	0.004	0.002
00037153	<T	0.02	0.290	0.025	0.015	0.025	0.255	0.011	0.001
00081035	0.03	0.230	<T	0.015	<T	0.020	0.205	<T	0.002
00081069	0.09	0.240	0.035	<T	0.015	0.030	0.190	<T	0.003
00081093	0.30	0.350	0.050	D	0.035	0.145	0.115	<T	0.004
00081119	0.09	0.150	0.005	<W	0.005	0.050	<W	0.002	< 0.001
	NICKEL		IRON	LEAD	VANADIUM	ALUMINIUM	COPPER	ACIDITY GRAN	
SAMPLE NUMBER	MG/L	ZINC	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L
00036566	****	1DT	0.012	****	****	1DT	0.047	****	102.00
00036652	<	0.0002	0.038	1DT	0.004	0.069	0.0032	1DT 0.0044	67.10
00036736	0.0007	1DT 0.011	0.066	1DT 0.004	<	0.0004	0.045	0.0032	49.20
00036817	0.0005	1DT 0.009	0.021	1DT 0.006	<	0.0004	0.067	0.0035	170.00
00036870	0.0008	1DT 0.005	0.053	<	<	0.0004	0.030	1DT 0.0005	49.20
00036946	0.0004	1DT 0.002	0.018	<	<	0.0004	0.030	1DT 0.0008	52.10
00037020	0.0002	1DT 0.002	0.015	1DT 0.002	<	0.0004	0.013	1DT 0.0008	44.70
00037079	D	0.0002	0.005	0.012	<	0.0004	0.034	<	0.0003
00037153	<	0.0002	0.008	1DT 0.003	<	0.0004	0.006	<	0.0005
00081035	<	0.0002	D	1DT 0.005	<	0.0004	0.020	1DT 0.0007	89.90
00081069	0.0002	<	0.013	1DT 0.036	<	0.0004	0.026	1DT 0.0007	74.80
00081093	<	0.0002	0.036	1DT 0.031	D	0.0006	0.026	1DT 0.0016	36.70
00081119	<	0.0002	0.007	0.013	<	0.0004	0.010	1DT 0.0005	60.50

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REGION-NE STATION-KILLARNEY MIC TYPE A SITE NO.1														
SAMPLE NUMBER	SUBMISSION NUMBER	LIS TYPE	PROJECT CODE	SUB CODE	SAMPLE REMOVAL DATE	EXPOSURE		PREC. START HR	PREC. TYPE	PREC. AT EXP	GAUGE		PREC. DEPTH AT REMA.	EFFICIENCY %
						DATE	HR				TYPE	DEPTH (MM)		
00036484	AF02104	PR	02	01	JAN 30, 1987	DEC 2, 1986	1044	1315	2	1	2	84.0	48.22	
00036574	AF02121	PR	02	01	JAN 30, 1987	JAN 4, 1987	1330	1044	2	1	1	41.9	36.61	
00036660	AF02167	PR	02	01	FEB 24, 1987	JAN 30, 1987	1445	1330	2	1	2	19.9	64.23	
00036746	AF02179	PR	02	01	MAR 24, 1987	FEB 24, 1987	1126	1445	2	1	2	28.0	53.90	
00036825	AF02203	PR	02	01	APR 21, 1987	MAR 24, 1987	1320	1126	1	2	2	57.3	0.65	
00036878	AF02226	PR	02	01	MAY 19, 1987	APR 21, 1987	1425	1320	1	1	3	35.0	92.58	
00036954	AF02251	PR	02	01	JUN 16, 1987	MAY 19, 1987	0835	1425	1	1	3	65.0	80.27	
00037028	AF02279	PR	02	01	JUL 14, 1987	JUN 16, 1987	1035	1310	1	1	3	40.0	97.33	
00037087	AF02295	PR	02	01	AUG 11, 1987	JUL 14, 1987	1850	1035	1	1	3	45.0	96.72	
00037169	AF02319	PR	02	01	SEP 6, 1987	AUG 11, 1987	1020	1850	1	1	3	50.0	87.16	
00081043	AF02348	PR	02	01	OCT 6, 1987	SEP 6, 1987	1130	1020	1	1	3	62.0	47.79	
00081076	AF02392	PR	02	01	NOV 3, 1987	OCT 6, 1987	1710	1130	1	1	9	63.3	74.49	
00081100	AF02413	PR	02	01	DEC 2, 1987	NOV 3, 1987	0945	1710	3	0	2	65.2	47.85	
00081125	AF02430	PR	02	01	DEC 29, 1987	DEC 2, 1987	1107	0945	3	0	2	91.0	55.14	
SAMPLE NUMBER	FIELD COMMENTS	OFFICE COMMENTS	VOLUME ML	CONDUCT	LAB.PH		ACIDITY.TFE		SULFATE MG/L	NITRATE MG/L	CALCIUM MG/L			
					UMHO/CM									
00036484	NZ		1315		43.20	4.12	****		3.15	1.00	<T	0.08		
00036574	P		498		35.00	4.21	****		1.80	0.92	0.30	0.36		
00036660	Z		415	D	45.00	4.09	****		2.50	1.30	0.30	0.36		
00036746	D		490	LG	8.35	UG	****		0.45	LG	<T	0.02		
00036825	G		12	LIS	****	4.38	****		LIS	****	LIS	****		
00036878			1052		32.10	4.51	****		4.95	0.81	0.78			
00036954	A		1694		45.99	3.99	****		4.60	0.71	0.24			
00037028			1264		32.90	4.16	****		3.55	0.50	0.36			
00037087			1413		27.00	4.25	****		3.20	0.44	0.24			
00037169	C		1415		31.00	4.23	****		2.95	0.30	0.14			
00081043	G		962		31.00	4.36	****		3.40	0.48	0.34			
00081076	A		1531		21.00	4.23	****		3.10	0.70	0.28			
00081100	N		1013		21.00	4.33	****		1.60	0.47	<T	0.10		
00081125	G		1629		20.50	4.40	****		1.35	0.51	<T	0.06		

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REGION-NE STATION-KILLARNEY MIC TYPE A SITE NO.1

SAMPLE NUMBER	CHLORIDE MG/L	KJELDAHL MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	PHOSPHOR MG/L	MANGANESE MG/L
00036484	0.16	0.780	<T 0.015	<T 0.005	0.035	0.670	<W 0.002	< 0.001
00036574	0.29	0.330	0.025	<T 0.020	0.110	0.280	<W 0.002	0.004
00036660	0.35	1.130	0.050	<T 0.005	0.140	0.685	0.011	0.003
00036746	0.06	<T 0.060	<T 0.005	<T 0.005	0.040	<W 0.005	<T 0.008	< 0.001
00036825	IIS	IIS	IIS	IIS	IIS	IIS	IIS	IIS
00036878	0.12	1.050	0.130	0.060	0.110	0.970	0.016	0.012
00036954	0.08	0.700	0.040	0.060	0.035	0.645	<T 0.004	0.002
00037028	0.10	0.480	0.060	0.040	<T 0.015	0.365	<T 0.002	0.002
00037087	<W	0.430	0.040	<T 0.020	0.025	0.465	<T 0.002	0.002
00037169	0.07	0.200	<T 0.025	<T 0.015	<T 0.025	1G	<T 0.006	0.001
00081043	0.25	0.900	0.055	UG 0.230	UG 0.205	0.500	0.013	0.003
00081076	0.23	0.350	0.040	0.035	0.080	0.285	<T 0.008	0.002
00081100	0.13	0.230	<T 0.015	<W 0.005	0.070	0.175	<T 0.005	< 0.001
00081125	0.14	0.410	<T 0.005	<T 0.010	0.025	0.285	<T 0.002	< 0.001
SAMPLE NUMBER	NICKEL MG/L	ZINC MG/L	IRON MG/L	LEAD MG/L	VANADIUM MG/L	ALUMINUM MG/L	COPPER MG/L	ACIDITY GRAN UG/L
00036484	< 0.0002	1DT 0.005	0.014	1DT 0.006	0.0005	0.022	0.0011	114.00
00036574	0.0007	1DT 0.009	0.034	1DT 0.005	0.0004	0.072	0.0041	87.20
00036660	< 0.0002	1DT 0.013	D 0.040	0.006	0.0004	1DT 0.046	1DT 0.0025	D 119.00
00036746	< 0.0002	< 0.003	1DT 0.023	< 0.003	< 0.0004	1DT 0.017	D 0.0011	LG 33.60
00036825	IIS	IIS	IIS	IIS	IIS	IIS	IIS	IIS
00036878	0.0003	1DT 0.006	UG 0.071	0.002	< 0.0004	0.083	0.0009	55.60
00036954	< 0.0002	0.008	0.018	1DT 0.001	< 0.0004	0.028	0.0016	UG 117.00
00037028	0.0002	0.017	0.025	1DT 0.002	< 0.0004	1DT 0.029	1DT 0.0005	95.50
00037087	0.0005	1DT 0.011	0.018	1DT 0.006	< 0.0004	1DT 0.017	1DT 0.0004	84.30
00037169	0.0007	1DT 0.005	0.018	0.011	< 0.0004	0.031	1DT 0.0026	83.70
00081043	0.0012	0.016	0.018	1DT 0.002	< 0.0004	1DT 0.014	1DT 0.0030	73.50
00081076	< 0.0002	1DT 0.003	0.014	0.008	< 0.0004	0.012	1DT 0.0010	99.10
00081100	0.0004	< 0.002	0.011	1DT 0.004	< 0.0004	1DT 0.009	0.0034	69.00
00081125	< 0.0002	< 0.002	0.012	0.010	< 0.0004	< 0.008	0.0003	65.10

ONTARIO MINISTRY OF THE ENVIRONMENT
APLOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

DATA LISTING

CUMULATIVE SAMPLING ANALYSIS RESULTS

REGION-NE STATION-MATTAWA MIC TYPE A SITE NO.]													
SAMPLE NUMBER	SUBMISSION NUMBER	LIS TYPE	PROJECT CODE	SAMPLE REMOVAL DATE	EXPOSURE DATE	END DATE	SAMPLE START DATE	PREC. TYPE	PREC. EXP	PREC. AT	GUAGE TYPE	GUAGE DEPTH (MM)	EFFICIENCY %
00036571	AF02121	PR	02	JAN 27, 1987	DEC 30, 1986	1415	1430	2			2	16.4	71.18
00036657	AF02167	PR	02	FEB 26, 1987	JAN 27, 1987	1350	1415	2	1		9	61.1	53.18
00036743	AF02179	PR	02	MAR 24, 1987	FEB 26, 1987	1315	1350	2			2	50.7	21.44
00036822	AF02203	PR	02	APR 21, 1987	MAR 24, 1987	0945	1315	1			2	46.7	84.09
00036875	AF02226	PR	02	MAY 19, 1987	APR 21, 1987	1100	0945	1			3	47.7	86.07
00036951	AF02251	PR	02	JUN 16, 1987	MAY 19, 1987	1354	1100	1			3	73.0	94.97
00037025	AF02279	PR	02	JUL 15, 1987	JUN 16, 1987	1230	1354	1			3	50.0	88.77
00037084	AF02295	PR	02	AUG 13, 1987	JUL 15, 1987	1450	1230	1			3	51.0	93.06
00037158	AF02319	PR	02	SEP 8, 1987	AUG 13, 1987	1850	1450	1			3	96.0	86.55
00081040	AF02348	PR	02	OCT 6, 1987	SEP 8, 1987	0910	1850	1			3	51.0	102.61
00081073	AF02392	PR	02	NOV 3, 1987	OCT 6, 1987	1005	0910	1	1		3	45.9	151.85
00081097	AF02413	PR	02	DEC 1, 1987	NOV 3, 1987	1020	1005	3			3	55.7	74.76
00081123	AF02430	PR	02	DEC 30, 1987	DEC 1, 1987	1530	1020	2			2	62.5	71.85
CONDUCT													
LAB-PH													
ACIDITY/PPE													
SULFATE													
MG/L													
NITRATE													
MG/L													
CALCIUM													
MG/L													
36571000			379	21.40	4.53	****			1.25		0.56	0.30	
00036657	P	Z	1055	20.50	4.39	****			0.95		0.56	0.06	
00036743		NZ	353	8.87	4.68	****			0.60	LG	0.13	<T	0.04
00036822			1275	25.00	4.19	****			2.45		0.47	<T	0.08
00036875	P	H	1364	37.83	4.30	****		UG	6.00		0.73	0.82	
00036951	CD	C	2251	30.83	4.25	****			3.70		0.50	0.16	
00037025			1441	12.20	4.41	****			2.15		0.40	0.28	
00037084			1541	22.00	4.34	****			2.50		0.30	0.14	
00037158		Z	2754	33.00	4.23	****			3.30		0.36	0.10	
00081040			1699	15.50	4.57	****		B	1.45	LG	0.20	0.10	
00081073		N	2263	27.00	4.40	****			2.30		0.62	0.22	
00081097			1352	18.00	4.38	****			1.55		0.44	<T	0.08
00081123			1456	22.50	4.34	****			1.30		0.51	<T	0.06

ONTARIO MINISTRY OF THE ENVIRONMENT
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 DATA LISTING
 CUMULATIVE SAMPLING ANALYSIS RESULTS

REGION-NE STATION-MATTAWA MIC TYPE A SITE NO. 1

SAMPLE NUMBER	CHLORIDE MG/L	KJELDHAL MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	PHOSPHOR MG/L	MANGANESE MG/L
00036571	0.36	0.210	0.025	0.030	0.275	0.115	0.031	0.005
00036657	0.17	0.310	<T	<T	0.090	0.220	<T	0.001
00036743	0.17	<T	0.005	0.015	0.115	0.115	0.025	0.001
00036822	0.19	0.070	<T	0.025	0.055	0.220	<T	0.002
00036875	0.09	0.970	0.130	0.103	0.085	0.845	0.022	0.015
00036951	0.04	1.140	0.045	B	<T	0.745	D	0.069
00037025	0.10	0.360	0.050	0.035	0.025	0.235	<T	0.003
00037064	0.19	0.270	<T	0.020	0.025	0.245	<W	0.002
00037158	0.12	0.330	<T	0.020	0.045	0.295	<T	0.006
00081040	0.01	0.160	<T	0.010	0.005	0.130	<T	0.003
00081073	0.16	0.390	0.035	0.035	0.120	0.350	<T	0.006
00081097	0.13	0.260	<T	0.005	0.065	0.235	<T	0.002
00081123	0.13	0.150	<T	0.015	0.040	0.110	<W	0.001
SAMPLE NUMBER	NICKEL MG/L	ZINC MG/L	IRON MG/L	LEAD MG/L	VANADIUM MG/L	ALUMINIUM MG/L	COPPER MG/L	ACIDITY GRAM UG/L
36571000	0.0010	1DT	0.007	<	<	0.077	UG	0.0272
00036657	<	1DT	0.001	0.003	<	1DT	1DT	0.0023
00036743	<	1DT	0.006	1DT	<	0.048	1DT	0.0013
00036822	0.0004	<	0.002	1DT	<	0.020	1DT	0.0016
00036875	0.0003	1DT	0.006	0.103	<	0.079	0.0007	82.50
00036951	0.0002	1DT	0.006	1DT	<	0.026	0.0012	76.60
00037025	0.0004	1DT	0.006	1DT	<	1DT	0.0005	60.80
00037064	0.0007	1DT	0.010	1DT	<	1DT	1DT	0.0019
00037158	<	1DT	0.001	1DT	<	0.028	1DT	0.0010
00081040	<	0.002	0.005	0.019	<	D	1DT	49.50
00081073	<	1DT	0.001	1DT	<	0.036	1DT	0.0012
00081097	0.0004	1DT	0.004	0.026	<	0.017	1DT	0.0006
00081123	<	<	0.002	1DT	<	0.013	1DT	0.0021
			0.053	0.004	<	1DT	0.0012	71.70

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AFIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
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CUMULATIVE SAMPLING ANALYSIS RESULTS

REGION-NE STATION-MCKELLAR MIC TYPE A SITE NO.1														
SAMPLE NUMBER	SUBMISSION LIS	PROJECT SUB	SAMPLE	EXPOSURE	SAMPLE	PREC.	PREC.	GAUGE	EFFICIENCY					
NUMBER	NUMBER	TYPE	TYPE	REMOVAL	DATE	HR	START	TYPE	AT	AT	DEPTH	GAUGE	PREC.	%
				DATE			HR		EXP	REM.	TYPE	DEPTH		
00036573	AP02121	PR	02	01	JAN 27, 1987	DEC 29, 1986	0815	0800	2		2	4.0		190.19
00036659	AP02167	PR	02	01	FEB 24, 1987	JAN 27, 1987	0820	0815	2		2	81.0		24.07
00036745	AP02179	PR	02	01	MAR 24, 1987	FEB 24, 1987	0830	0820	2		2	26.0		89.32
00036824	AP02203	PR	02	01	APR 21, 1987	MAR 24, 1987	0830	0820	1		3	60.2		78.07
00036877	AP02226	PR	02	01	MAY 19, 1987	APR 21, 1987	0815	0820	1		3	29.0		107.59
00036953	AP02251	PR	02	01	JUN 16, 1987	MAY 19, 1987	0830	0815	1		3	117.0		49.65
00037027	AP02279	PR	02	01	JUL 14, 1987	JUN 16, 1987	0830	0830	1		3	10.0		187.74
00037086	AP02295	PR	02	01	AUG 11, 1987	JUL 14, 1987	0820	0830	1		3	21.0		185.68
00037160	AP02319	PR	02	01	SEP 6, 1987	AUG 11, 1987	0830	0820	1	1	3	134.0		72.22
00081042	AP02348	PR	02	01	OCT 6, 1987	SEP 6, 1987	0830	0830	1	1	3	75.0		85.87
00081075	AP02392	PR	02	01	NOV 3, 1987	OCT 6, 1987	0835	0830	1	1	3	78.0		104.36
00081099	AP02430	PR	02	01	DEC 12, 1987	NOV 3, 1987	0830	0835	3	1	2	121.4		80.25
00081129	AP02430	PR	02	01	DEC 29, 1987	DEC 12, 1987	0845	0830	3	2	2	44.9		61.26
SAMPLE NUMBER	FIELD OFFICE	VOLUME	COMMENTS	ML	CONDUCT	LAB.FH	ACIDITY.TFE	SULFATE	NITRATE	CALCIUM				
					UMHO/CM			MG/L	MG/L	MG/L				
00036573	G	247			32.30		4.24	****	1.60	0.82	0.14			
00036659	F	633			25.00		4.42	****	1.40	0.86	0.14			
00036745		754			14.60		4.53	****	0.90	0.24	<T	0.02		
00036824	C	1526			32.00		4.06	****	3.20	0.75	<T	0.06		
00036877		1013			48.15		4.07	****	5.85	0.84	0.68			
00036953	NHM	1886			43.46		4.15	****	5.70	0.88	0.58			
00037027	ABC	642			11.30	B	6.49	****	4.10	0.55	0.48			
00037086	NC	1266			23.50		4.32	****	2.80	0.39	0.22			
00037160		3142			44.50		4.08	****	4.15	0.54	0.18			
00081042	JC	2091			26.00		4.34	****	2.55	0.37	0.28			
00081075		2643			31.00		4.29	****	2.60	0.69	0.16			
00081099	Z	3163			23.50		4.37	****	1.85	0.51	0.10			
00081129	G	893			4.00	UG	5.17	****	LG	0.30	LG	0.16	<T	0.02

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REGION-NE STATION-MCKELLAR MIC TYPE A SITE NO.1

SAMPLE NUMBER	CHLORIDE MG/L	KJELDAHL MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	PHOSPHOR MG/L	MANGANESE MG/L
00036573	0.34	0.290	0.030	<T 0.025	0.160	0.290	<T 0.003	0.002
00036659	0.31	0.630	<T 0.020	<T 0.010	0.170	0.535	0.011	0.002
00036745	0.09	<T 0.040	<W 0.005	<W 0.005	0.055	<W 0.005	<T 0.005	< 0.001
00036824	0.25	0.540	<T 0.010	<T 0.020	0.040	0.475	<T 0.006	0.002
00036877	0.09	0.760	0.095	0.060	0.070	0.740	0.011	UG 0.010
00036953	0.11	UG 1.540	0.120	UG 0.280	0.045	UG 1.350	0.064	UG 0.017
00037027	0.15	B 1.980	0.105	B 0.370	0.070	B 1.450	B 0.174	0.005
00037086	<W 0.01	0.380	0.030	<T 0.015	<T 0.025	0.365	<T 0.002	0.002
00037160	0.12	0.430	0.035	<T 0.015	0.035	0.335	<T 0.008	0.001
00081042	<T 0.03	0.350	0.050	<T 0.030	<T 0.020	0.265	<T 0.005	0.002
00081075	0.13	0.440	0.030	<T 0.015	<T 0.015	0.400	<T 0.003	0.001
00081099	0.19	0.260	<T 0.013	<T 0.010	0.050	0.385	<T 0.002	0.001
00081129	0.15	0.210	<T 0.005	<T 0.005	0.045	0.590	<T 0.003	< 0.001
SAMPLE NUMBER	NICKEL MG/L	ZINC MG/L	IRON MG/L	LEAD MG/L	VANADIUM MG/L	ALUMINIUM MG/L	COPPER MG/L	ACIDITY GRAN UG/L
00036573	D 0.0048	1DT 0.013	B 0.173	< 0.005	< 0.0004	0.061	B 0.0434	83.70
00036659	< 0.0002	1DT 0.012	0.030	1DT 0.004	< 0.0004	1DT 0.038	1DT 0.0022	64.40
00036745	< 0.0002	< 0.002	0.071	< 0.002	< 0.0004	1DT 0.015	1DT 0.0009	52.40
00036824	< 0.0002	1DT 0.002	0.013	1DT 0.001	< 0.0004	0.016	0.0013	D 108.00
00036877	D 0.0093	1DT 0.006	B 0.241	0.004	< 0.0004	0.062	D 0.0026	109.00
00036953	< 0.0002	1DT 0.009	0.035	0.002	< 0.0004	0.037	0.0020	93.60
00037027	D 0.021	D 0.021	0.033	1DT 0.002	< 0.0004	0.056	0.0013	28.80
00037086	< 0.0005	1DT 0.006	0.047	1DT 0.003	< 0.0004	1DT 0.016	1DT 0.0014	72.40
00037160	< 0.0002	1DT 0.001	0.011	0.005	< 0.0004	0.032	1DT 0.0007	107.00
00081042	< 0.0002	< 0.001	0.016	1DT 0.001	< 0.0004	0.014	0.0010	70.30
00081075	< 0.0002	< 0.001	0.013	0.009	< 0.0004	0.010	1DT 0.0007	88.70
00081099	< 0.0002	< 0.001	0.012	0.004	< 0.0008	0.012	0.0008	73.10
00081129	< 0.0002	< 0.002	0.009	0.004	< 0.0004	< 0.011	< 0.0004	LG 24.50

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REGION-NE STATION-MOONBEAM MIC TYPE A SITE NO.1												
SAMPLE NUMBER	SUBMISSION LIS	PROJECT SUB	SAMPLE PROJECT	SAMPLE REMOVAL DATE	EXPOSURE DATE	SAMPLE END	SAMPLE START	PREC. AT EXP	PREC. AT	GAUGE DEPTH (MM)	EFFICIENCY	
NUMBER	TYPE	CODE	CODE	DATE	DATE	HR	HR	HR	TYPE	REMARK	%	
00036575	PR	02	01	JAN 27, 1987	DEC 29, 1986	1338	1348	2	1	1	21.6	49.19
00036661	PR	02	01	FEB 24, 1987	JAN 27, 1987	1327	1338	2	1	9	19.3	29.52
00036747	PR	02	01	MAR 24, 1987	FEB 24, 1987	1350	1327	2	1	2	22.6	14.04
00036826	PR	02	01	APR 21, 1987	MAR 24, 1987	1250	1350	1	2	2	22.2	50.92
00036879	PR	02	01	MAY 19, 1987	APR 21, 1987	1415	1250	1	3	1	18.2	51.62
00036955	PR	02	01	JUN 16, 1987	MAY 19, 1987	1330	1415	1	3	3	50.0	76.57
00037029	PR	02	01	JUL 17, 1987	JUN 16, 1987	1345	1330	1	3	3	140.0	89.54
00037088	PR	02	01	AUG 12, 1987	JUL 17, 1987	1353	1345	1	3	3	65.0	95.67
00037170	PR	02	01	SEP 9, 1987	AUG 12, 1987	1428	1353	1	3	3	45.0	80.63
00081044	PR	02	01	OCT 6, 1987	SEP 9, 1987	1441	1428	1	1	3	75.0	94.54
00081077	PR	02	01	NOV 3, 1987	OCT 6, 1987	1435	1441	1	3	59.0	81.85	
00081101	PR	02	01	DEC 8, 1987	NOV 3, 1987	1335	1435	3	0	54.0	66.05	
00081127	PR	02	01	DEC 30, 1987	DEC 8, 1987	1430	1335	2	2	71.4	24.42	
					LAB.PH	ACIDITY.TFE	SULFATE	NITRATE				
SAMPLE NUMBER	COMMENTS	OFFICE	VOLUME	CONDUCT	UMHO/CM	MG/L	MG/L	MG/L				
00036575	N	345		30.50		4.27	****	1.40	0.89	0.22		
00036661	P	185		14.00		6.01	****	1.65	0.47	0.88		
00036747	N	103		39.60	B	7.68	****	1.05	<N	0.01	B	4.84
00036826	D	367		17.00	UG	6.65	****	4.75	0.52	0.52	UG	2.00
00036879	C	305		34.96	UG	7.49	****	5.05	0.61	0.61	B	3.52
00036955	C	1243		16.17	UG	4.49	****	1.75	0.24	0.24	0.16	
00037029	D	2		9.40		4.89	****	0.85	0.15	0.15	0.18	
00037088	D	2019		17.00		4.50	****	1.65	0.20	0.20	<T	0.10
00037170	N	1178		16.00		4.61	****	1.55	0.23	0.23	0.14	
00081044	N	2302		22.00		4.64	****	2.15	0.27	0.27	0.22	
00081077	GQ	1568		22.00		4.47	****	2.10	0.41	0.41	0.16	
00081101	Z	1158		11.00		4.59	****	1.15	0.22	0.22	<T	0.08
00081127	Z	566		11.00		4.62	****	0.75	0.25	0.25	<T	0.04

SAMPLE FIELD OFFICE VOLUME

NUMBER COMMENTS COMMENTS

ML

UMHO/CM

LAB.FH

CONDUCT

SULFATE

NITRATE

CALCIUM

MG/L

MG/L

MG/L

MG/L

MG/L

MG/L

MG/L

MG/L

MG/L

MG/L

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REGION-NE STATION MOONBEAM MIC TYPE A SITE NO.1

SAMPLE NUMBER	CHLORIDE MG/L	KJELDAHL MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	PHOSPHOR MG/L	MANGANESE MG/L
00036575	0.36	0.300	0.040	0.035	0.225	0.290	0.031	0.003
00036661	B	0.280	D	0.035	B	0.415	0.090	0.012
00036747	B	0.76	1.280	D	0.050	B	0.021	B
00036826	0.25	0.780	B	0.110	D	0.435	0.005	0.009
00036879	0.13	1.170	B	0.635	UG	0.175	0.180	0.014
00036955	0.07	0.290	B	0.030	UG	0.235	0.745	0.001
00037029	<T	0.160	<T	0.055	<T	0.035	0.240	0.002
00037088	<W	0.180	<T	0.030	<T	0.010	0.080	0.001
00037170	<W	0.190	<T	0.005	<T	0.030	0.140	<
00081044	<T	0.400	0.030	<T	UG	0.155	0.002	0.001
00081077	0.12	0.280	0.030	0.020	UG	0.140	0.360	0.002
00081101	0.11	0.190	<T	0.025	<T	0.030	0.245	0.002
00081127	0.06	0.100	<T	0.005	<T	0.055	0.130	<
	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINIUM	COPPER	ACIDITY GRAN
SAMPLE NUMBER	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L
00036575	0.0034	1DT	0.010	1DT	<	0.0004	0.0033	81.70
00036661	0.0006	1DT	0.015	0.008	<	0.0004	0.109	19.10
00036747	0.0019	1DT	0.011	<	D	0.0005	B	9.34
00036826	0.0009	1DT	0.004	<	<	0.0004	D	1G
00036879	0.0006	UG	0.216	0.004	<	0.0004	0.128	15.40
00036955	<	1DT	0.003	<	<	0.0004	B	14.20
00037029	0.0002	1DT	0.012	0.002	<	0.0004	2.721	1G
00037088	<	1DT	0.008	1DT	<	0.0004	0.026	48.60
00037170	<	1DT	0.011	1DT	<	0.0004	1DT	32.10
00081044	<	1DT	0.007	0.004	<	0.0004	1DT	0.0006
00081077	<	1DT	0.004	<	<	0.0004	1DT	45.50
00081101	<	<	0.015	0.010	<	0.0004	1DT	45.70
00081127	<	<	0.020	0.015	<	0.0004	1DT	64.90
			0.022	0.009	<	0.0004	1DT	47.70
					<	0.014	1DT	44.30

ONTARIO MINISTRY OF THE ENVIRONMENT
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 DATA LISTING
 CUMULATIVE SAMPLING ANALYSIS RESULTS

REGION-NE STATION-MOOSONEE MIC TYPE A SITE NO.1														
SAMPLE NUMBER	SUBMISSION NUMBER	LIS TYPE	PROJECT CODE	SAMPLE TYPE	REMOVAL DATE	EXPOSURE DATE	END DATE	START DATE	SAMPLE TYPE	PREC. AT EXP	PREC. AT REM.	GAUGE DEPTH (MM)	EFFICIENCY %	
00036576	AF02121	PR	02	01	FEB 2, 1987	DEC 30, 1986	1300	1330	2	1	2	142.0	6.72	
00036662	AF02167	PR	02	01	FEB 25, 1987	FEB 2, 1987	1300	1300	2	1	2	20.6	12.71	
00036827	AF02203	PR	02	01	APR 15, 1987	FEB 25, 1987	1723	1300	1	2	3	31.3	43.49	
00036880	AF02226	PR	02	01	MAY 19, 1987	APR 15, 1987	1230	1723	1	3	4	41.0	84.36	
00036956	AF02251	PR	02	01	JUN 16, 1987	MAY 19, 1987	1900	1230	1	3	4	44.0	17.08	
00037030	AF02279	PR	02	01	JUL 15, 1987	JUN 16, 1987	1831	1900	1	3	7	71.0	126.19	
00037089	AF02295	PR	02	01	AUG 11, 1987	JUL 15, 1987	1937	1831	1	3	11	110.0	93.94	
00037171	AF02319	PR	02	01	SEP 8, 1987	AUG 11, 1987	2000	1937	1	2	9	91.0	87.19	
00081046	AF02348	PR	02	01	OCT 6, 1987	SEP 8, 1987	1730	2000	1	1	3	34.3	95.00	
00081078	AF02392	PR	02	01	NOV 3, 1987	OCT 6, 1987	1730	1730	1	1	3	54.7	48.82	
00081102	AF02413	PR	02	01	DEC 1, 1987	NOV 3, 1987	1230	1730	3	0	3	31.8	145.77	
00081128	AF02430	PR	02	01	DEC 29, 1987	DEC 1, 1987	1730	1230	2	2	28.6	83.57		
CONDUCT LAB.PH ACIDITY.TFE SULFATE NITRATE CALCIUM														
UMHO/CM														
00036576	P	2	310		16.30	4.55	***			0.85	0.40	<T	0.10	
00036662	N2	85			9.00	5.23	***			1.10	0.22		0.50	
00036827	NH2	442			6.00	5.18	***			1.50	0.21	0.54		
00036880	D	H2	1123		24.07	4.52	***			3.75	0.45		0.92	
00036956	G		244		> 100.00	UG	8.28	***	UG	12.50	0.07	1.58		
00037030	QA	N	2909		12.20	4.79	***			1.20	0.25	0.20		
00037089			3355		8.00	UG	6.78	***		0.60	0.10	0.26		
00037171			2576		14.00	4.65	***			1.35	0.15	<T	0.06	
00081046	B		1058		20.00	4.65	***			2.50	0.28	0.50		
00081078		N	867		31.00	4.36	***			2.90	0.50	0.14		
00081102		N	1505		INR	INR	***		INR	***	INR	***	***	
00081128	G		776		13.00	4.60	***			0.80	0.34		0.12	

SAMPLE FIELD OFFICE COMMENTS

ONTARIO MINISTRY OF THE ENVIRONMENT
 APQS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 DATA LISTING
 CUMULATIVE SHOPPING ANALYSIS RESULTS

REGION-NE STATION-MOOSNEE MIC TYPE A SITE NO.1											
SAMPLE NUMBER	CHLORIDE MG/L	KJELDAHL MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	PHOSPHOR MG/L	MANGANESE MG/L			
00036576	0.23	0.200	0.035	<T	0.015	0.090	<T	0.002	0.001		
00036662	0.31	UG	0.095	0.040	0.180	!NR	<W	0.002	0.001		
00036827	0.13	0.380	0.085	<T	0.065	0.160	<T	0.005	UG	0.004	
00036880	0.07	0.620	0.105	0.080	0.080	0.525	0.013	0.011	<	0.011	
00036956	2.75	ISM	UG	U	23.000	U	ISM	0.001	<	0.001	
00037030	0.20	0.300	0.035	0.090	0.080	50.000	<W	0.002	0.003		
00037089	0.50	0.580	0.035	0.295	0.240	0.360	<T	0.004	0.001		
00037171	0.01	0.190	<T	0.010	0.050	0.140	<T	0.004	<	0.001	
00081046	0.52	0.250	0.130	0.080	0.510	0.120	0.013	0.005			
00081078	0.59	0.490	0.050	0.040	0.320	0.430	<W	0.002	0.001		
00081102	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	
00081126	NR	<T	0.025	<T	0.100	ALUMINUM	<W	0.002	<	0.001	
SAMPLE NUMBER	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINUM	COPPER	ACIDITY GRAN			
00036576	0.0005	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L			
00036662	0.0005	1DT	0.027	1DT	<	0.0004	0.044	0.0021	49.40		
00036827	<	0.008	0.065	<	<	0.0004	0.049	0.0019	26.00		
00036880	0.0005	1DT	0.050	0.003	<	0.0004	0.072	0.0007	26.20		
00036956	UG	0.0107	0.181	<	0.003	UG	0.150	UG	53.70		
00037030	0.0008	1DT	0.007	0.001	<	0.0004	0.043	0.0036	1.00		
00037089	0.0008	0.024	0.017	1DT	<	1DT	0.031	0.0036	36.30		
00037171	<	0.001	1DT	0.008	<	1DT	0.031	1DT	17.10		
00081046	<	0.0002	0.024	0.003	<	1DT	0.031	1DT	42.40		
00081078	<	0.0002	0.010	0.023	<	1DT	0.031	1DT	47.00		
00081102	0.0013	<	0.074	0.007	<	1DT	0.031	1DT	86.30		
00081128	0.0013	<	0.074	0.007	<	<	0.011	0.0010	46.60		

ONTARIO MINISTRY OF THE ENVIRONMENT
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
DATA LISTING

CUMULATIVE SAMPLING ANALYSIS RESULTS

REGION-NE STATION-TURKEY LAKES MIC TYPE A SITE NO.1

SAMPLE NUMBER	SUBMISSION NUMBER	LIS TYPE	PROJECT SUB PROJECT CODE	SAMPLE REMOVAL DATE	EXPOSURE DATE	END HR	START HR	PREC. TYPE	PREC. AT EXP	GAUGE DEPTH (MM)	EFFICIENCY %
00036572	AF02121	PR	02	01	JAN 27, 1987	DEC 30, 1986	1200 1030	2	1	2	41.8 69.63
00036658	AF02167	PR	02	01	FEB 24, 1987	JAN 27, 1987	1045 1215	2	1	2	32.4 66.73
00036744	AF02179	PR	02	01	MAR 24, 1987	FEB 24, 1987	1135 1045	2	2	2	17.3 55.01
00036823	AF02203	PR	02	01	APR 21, 1987	MAR 24, 1987	1102 1135	1	2	2	47.1 73.04
00036876	AF02226	PR	02	01	MAY 19, 1987	APR 21, 1987	0855 1102	1	1	3	67.2 88.69
00036952	AF02251	PR	02	01	JUN 16, 1987	MAY 19, 1987	1030 0855	1	1	3	93.0 92.00
00037026	AF02279	PR	02	01	JUL 14, 1987	JUN 16, 1987	1120 1030	1	1	3	52.0 97.49
00037085	AF02295	PR	02	01	AUG 11, 1987	JUL 14, 1987	1130 1120	3	1	3	40.0 83.31
00037159	AF02319	PR	02	01	SEP 6, 1987	AUG 11, 1987	1000 1130	1	3	3	175.0 89.76
00081041	AF02348	PR	02	01	OCT 6, 1987	SEP 6, 1987	1130 1000	1	1	3	82.0 88.38
00081074	AF02392	PR	02	01	NOV 3, 1987	OCT 6, 1987	1030 1130	1	1	3	69.0 118.16
00081098	AF02413	PR	02	01	DEC 1, 1987	NOV 3, 1987	1200 1030	3	3	3	106.4 86.76
00081124	AF02430	PR	02	01	DEC 29, 1987	DEC 1, 1987	1230 1200	3	2	2	145.7 79.51
SAMPLE NUMBER	FIELD COMMENTS	OFFICE COMMENTS	VOLUME ML	CONDUCT	LAB.PH	ACIDITY.TFE	SULFATE MG/L	NITRATE MG/L	CALCIUM MG/L		
00036572			945	21.40	4.48	****	1.05	0.59	0.12		
00036658			702	25.00	4.44	****	1.90	0.79	0.30		
00036744			309	18.80	4.39	****	1.30	0.33	<T		
00036823	C		1117	28.00	4.16	****	3.80	0.53	0.18		
00036876	H		1935	13.76	5.04	****	1.75	0.35	0.34		
00036952	A		2778	25.27	4.32	****	2.85	0.46	0.14		
00037026	A		1646	10.80	4.53	****	2.20	0.46	0.26		
00037085			1082	20.00	4.42	****	2.25	0.36	0.22		
00037159			5100	17.00	4.61	****	1.90	0.27	0.12		
00081041	B		2353	7.50	5.24	****	1.40	0.23	0.32		
00081074			2647	19.00	4.63	****	2.25	0.51	0.40		
00081098			2997	17.00	4.40	****	1.65	0.36	0.16		
00081124	ACF		3761	14.50	4.54	****	1.00	0.37	<T 0.06		

ONTARIO MINISTRY OF THE ENVIRONMENT
 APLOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 DATA LISTING
 CUMULATIVE SAMPLING ANALYSIS RESULTS

REGION-NE STATION-TURKEY LAKES MIC TYPE A SITE NO. 1									
SAMPLE NUMBER	CHLORIDE MG/L	KJELDAHL MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	PHOSPHOR MG/L	MANGANESE MG/L	
00036572	0.27	0.220	0.025	0.060	0.130	0.235	<T	0.002	0.001
00036658	0.21	0.620	0.035	<T	0.005	0.095	D	0.560	0.003
00036744	0.14	0.160	0.010	<W	0.005	0.120	0.080	D	0.001
00036823	0.15	0.630	0.030	<T	0.025	0.055	0.475	<T	0.005
00036876	<W	0.470	0.065	0.035	0.025	0.460	<T	0.003	0.006
00036952	<W	0.600	0.025	0.040	<T	0.595	<T	0.003	0.002
00037026	0.15	0.420	0.055	<W	D	0.370	<T	0.008	D
00037065	0.14	0.360	0.025	<T	0.015	0.295	<T	0.003	0.003
00037159	<W	0.360	0.015	<T	0.010	0.340	<T	0.006	0.001
00081041	<W	0.240	0.035	D	0.090	0.140	<T	0.004	B
00081074	0.08	0.440	0.060	0.035	<T	0.375	<T	0.005	0.005
00081098	0.21	0.270	<T	<W	0.055	0.225	<W	0.002	<
00081124	0.06	0.200	<T	0.005	<T	0.145	<W	0.002	<
SAMPLE NUMBER	NICKEL MG/L	ZINC MG/L	IRON MG/L	LEAD MG/L	VANADIUM MG/L	ALUMINIUM MG/L	COPPER MG/L	ACIDITY GRAN UG/L	
00036572	0.0002	1DT	0.007	<	0.002	<	D	0.0012	56.20
00036658	<	0.0003	0.026	1DT	0.002	0.0004	1DT	0.0031	60.20
00036744	<	<	0.012	<	0.004	0.0004	1DT	0.0013	58.70
00036823	0.0007	0.002	0.022	1DT	0.001	0.0004	0.031	0.0051	91.10
00036876	<	0.0001	0.036	0.002	<	0.0004	1DT	0.0052	28.20
00036952	<	0.003	0.009	<	0.001	0.0004	0.017	0.0009	65.30
00037026	0.0004	1DT	0.021	1DT	0.001	0.0004	0.028	0.0007	52.00
00037065	0.0007	1DT	0.018	1DT	0.004	0.0004	1DT	0.0022	62.50
00037159	<	0.0002	0.018	1DT	0.004	0.0004	0.018	1DT	0.0003
00081041	<	0.009	0.075	0.005	0.004	0.011	1DT	0.0005	44.60
00081074	<	0.002	0.023	0.007	0.005	0.029	<	0.0003	31.90
00081098	<	<	0.001	1DT	0.002	0.029	<	0.0003	52.80
00081124	<	<	0.007	1DT	0.003	0.006	1DT	0.0024	60.70
	<	<	0.001	0.003	<	0.004	1DT	0.0002	50.90

ONTARIO MINISTRY OF THE ENVIRONMENT
AFIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
DATA LISTING
CUMULATIVE SAMPLING ANALYSIS RESULTS

REGION-NE STATION-WHITNEY MIC TYPE A SITE NO.1													
SAMPLE NUMBER	SUBMISSION LIS	PROJECT SUB	PROJECT CODE	SAMPLE TYPE	SAMPLE REMOVAL DATE	EXPOSURE DATE	SAMPLE START HR	PREC. START TYPE	PREC. AT EXP	GAUGE DEPTH (MM)	EFFICIENCY %		
000029641	AF02135	PR	02	01	JAN 27, 1987	DEC 30, 1986	1330	1000	2	2	19.0	78.95	
000029642	AF02135	PR	02	01	FEB 24, 1987	JAN 27, 1987	1335	1330	2	2	39.0	74.16	
000029665	AF02219		02	01	MAR 23, 1987	FEB 24, 1987	1615	1335	2	9	12.5	67.27	
000029664	AF02219		02	01	APR 21, 1987	MAR 23, 1987	1145	1615	3	2	83.0	81.53	
000029681	AF02251	PR	02	01	MAY 19, 1987	APR 21, 1987	1135	1145	1	3	26.0	177.93	
000029682	AF02251	PR	02	01	JUN 16, 1987	MAY 19, 1987	1410	1135	1	3	101.0	91.85	
000029690	AF02279	PR	02	01	JUL 21, 1987	JUN 16, 1987	0835	1410	1	3	33.0	112.19	
000029696	AF02279	PR	02	01	AUG 11, 1987	JUL 21, 1987	0830	0835	1	3	39.0	91.77	
000076010	AF02344	PR	02	01	SEP 6, 1987	AUG 11, 1987	0830	0830	1	3	44.0	97.93	
000076011	AF02344	PR	02	01	OCT 6, 1987	SEP 6, 1987	0830	0830	1	9	89.8	63.11	
000076031	AF02407	PR	02	01	NOV 4, 1987	OCT 6, 1987	1540	1610	3	1	81.0	99.43	
000076044	AF02439	PR	02	01	DEC 1, 1987	NOV 4, 1987	1550	1540	3	2	85.0	66.96	
000076045	AF02439	PR	02	01	DEC 29, 1987	DEC 1, 1987	1330	1550	3	1	62.0	74.12	
CONDUCT													
LAB-PH													
ACIDITY.TFE													
SULFATE													
MG/L													
NITRATE													
MG/L													
CALCIUM													
MG/L													
000029641			487		27.10	4.21	****	1.50	0.67	0.16			
000029642	C		939		22.40	4.42	****	0.85	0.64	<T	0.08		
000029665	I	X	273		****	****	****	****	****	****	****		
000029664	E		2197		****	****	****	****	****	****	****		
000029681	N		1502		31.84	4.33	****	4.45	0.73	0.76			
000029682	H		3012		18.19	6.07	****	3.75	0.42	0.18			
000029690	Z		1202		19.90	4.42	****	2.10	0.30	0.12			
000029696	Z		1162		32.30	4.18	****	3.40	0.35	0.10			
000076010			1399	B	63.50	3.93	****	5.45	0.84	0.32			
000076011			1840		21.00	4.45	****	2.00	0.30	0.20			
000076031			2615		30.00	4.24	****	2.45	0.68	0.22			
000076044	P		1848		15.50	4.52	****	1.25	0.34	<T	0.06		
000076045			1492		22.50	4.33	****	1.40	0.52	<T	0.06		

ONTARIO MINISTRY OF THE ENVIRONMENT
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 DATA LISTING
 CUMULATIVE SAMPLING ANALYSIS RESULTS

REGION-NE STATION-WHITNEY MIC TYPE A SITE NO.1													
SAMPLE NUMBER	CHLORIDE MG/L	KJELDAHL MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	PHOSPHOR MG/L	MANGANESE MG/L					
00029641	0.23	0.310	<T 0.015	<T 0.010	0.120	0.160	0.017	0.002					
00029642	0.16	0.220	<T 0.010	<W 0.005	0.055	0.160	<T 0.007	0.001					
00029665	0.06	0.830	0.110	0.080	0.045	0.815	<T 0.006	0.001					
00029664	0.06	0.830	0.110	0.080	0.045	0.815	<T 0.006	0.001					
00029661	0.06	2.120	0.025	0.150	<T 0.025	UG	UG 0.126	0.003					
00029662	0.06	0.260	0.030	<T 0.020	<T 0.010	0.550	<W 0.002	0.002					
00029690	<T 0.05	0.390	0.010	<T 0.015	<T 0.005	0.340	<W 0.002	B 0.017					
00029696	0.10	0.440	0.050	0.030	0.035	0.370	<T 0.003	0.002					
00076010	0.19	0.210	0.030	0.025	<T 0.020	0.190	<T 0.003	0.001					
00076011	<T 0.05	0.370	0.025	<T 0.020	<T 0.025	0.355	<W 0.002	0.001					
00076031	<T 0.01	0.160	<T 0.005	<T 0.010	0.050	0.145	<T 0.003	< 0.001					
00076044	0.08	0.160	<T 0.005	<T 0.010	0.045	0.145	<T 0.004	< 0.001					
00076045	0.11	0.180	<T 0.005	LEAD	VANADIUM	ALUMINIUM	COPPER	ACIDITY GRAN					
SAMPLE NUMBER	NICKEL MG/L	ZINC MG/L	IRON MG/L	LEAD MG/L	VANADIUM MG/L	ALUMINIUM MG/L	COPPER MG/L	ACIDITY GRAN UG/L					
00029641	< 0.0002	0.011	0.025	1DT 0.003	< 0.0004	0.062	0.0010	81.90					
00029642	< 0.0002	0.005	0.010	1DT 0.002	< 0.0004	0.023	0.0013	67.00					
00029665	0.0002	0.005	0.010	1DT 0.002	< 0.0004	0.023	0.0013	67.00					
00029664	0.0002	0.004	0.062	0.002	D 0.0009	0.073	0.0011	66.70					
00029681	0.0002	1DT 0.004	0.021	1DT 0.001	< 0.0006	0.031	1DT 0.0005	LG					
00029682	< 0.0002	0.007	0.009	1DT 0.002	< 0.0004	1DT 0.009	1DT 0.0004	26.70					
00029690	0.0003	< 0.002	0.011	< 0.002	< 0.0004	1DT 0.006	1DT 0.0004	60.40					
00029696	D 0.0010	< 0.002	0.025	0.005	< 0.0004	1DT 0.006	0.0011	90.40					
00076010	0.0005	0.004	0.025	0.005	< 0.0004	0.013	1DT 0.0011	UG 161.00					
00076011	< 0.0002	1DT 0.001	0.016	1DT 0.004	< 0.0004	0.015	0.0006	61.80					
00076031	< 0.0002	1DT 0.002	0.016	0.017	< 0.0004	0.015	0.0007	87.00					
00076044	< 0.0002	< 0.002	0.007	0.005	< 0.0004	< 0.008	1DT 0.0003	53.70					
00076045	< 0.0002	< 0.002	0.009	0.011	< 0.0004	1DT 0.009	1DT 0.0003	73.90					

PART V

NORTHWESTERN REGION CUMULATIVE AMBIENT AIR RESULTS

ONTARIO MINISTRY OF THE ENVIRONMENT
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

DATA LISTING

CUMULATIVE SAMPLING ANALYSIS RESULTS

REGION-NW STATION-DORION MIC TYPE A SITE NO.1													
SAMPLE NUMBER	SUBMISSION LIS NUMBER	SAMPLE TYPE	PROJECT SUB CODE	SAMPLE REMOVAL DATE	EXPOSURE DATE	END DATE	HR	PREC. AT EXP	PREC. AT REM.	GAUGE TYPE	GAUGE DEPTH (MM)	EFFICIENCY %	
00031620	AP02135	PR	02	JAN 27, 1987	DEC 30, 1986	0908	0939	3					
00031622	AP02173	PR	02	FEB 24, 1987	JAN 27, 1987	0845	0930	2			11.0	42.00	
00031623	AP02190	PR	02	MAR 24, 1987	FEB 24, 1987	0857	0849	2			25.3	73.37	
00031624	AP02226	PR	02	APR 21, 1987	MAR 24, 1987	0907	0902	1			12.1	22.15	
00031625	AP02243	PR	02	MAY 19, 1987	APR 21, 1987	0910	0908	1			4.5	76.03	
00031626	AP02251	PR	02	JUN 16, 1987	MAY 19, 1987	0903	0910	1			20.3	87.70	
00031627	AP02295	PR	02	JUL 14, 1987	JUN 16, 1987	0904	0906	1			52.0	85.71	
00031628	AP02309	PR	02	AUG 11, 1987	JUL 14, 1987	0913	0904	1			36.0	102.58	
00031629	AP02330	PR	02	SEP 8, 1987	AUG 11, 1987	0920	0915	1			77.0	87.28	
00031630	AP02374	PR	02	OCT 6, 1987	SEP 8, 1987	0900	0926	1	1		105.1	107.43	
00031631	AP02394	PR	02	NOV 3, 1987	OCT 6, 1987	0905	0914	1	1		52.0	91.75	
00031632	AP02412	PR	02	DEC 1, 1987	NOV 3, 1987	0908	0910	2	1		56.0	90.47	
00031633	AP02439	PR	02	DEC 29, 1987	DEC 1, 1987	0933	0912	2	1		39.0	60.34	
LAB. PH													
SAMPLE FIELD OFFICE				ACIDITY.TFE				SULFATE		NITRATE		CALCIUM	
VOLUME				MG/L				MG/L		MG/L		MG/L	
ML				UMHO/CM									
00031620	N	150		22.90	4.48	****		1.70		0.62		0.26	
00031622		698		24.50	4.31	****		1.30		0.70		0.20	
00031623	NC	87		24.00	4.93	****		1.20	<W	0.01	<T	0.08	
00031624	Q	114		42.99	4.13	****		4.35		0.94		0.60	
00031625	C	578		15.13	6.76	****	UC	1.90		0.51		0.68	
00031626	H	1447		12.13	4.70	****		1.30		0.22		0.16	
00031627	C	1532		14.50	4.76	****		1.45		0.25		0.12	
00031628	CAF	2182		11.00	5.16	****		1.60		0.30		0.24	
00031629	QF	3666		10.00	4.88	****		1.20		0.18		0.14	
00031630	D	1549		7.00	4.98	****		0.90		0.13		0.16	
00031631	D	1645		6.50	4.85	****		1.25		0.21		0.14	
00031632	CP	764		18.00	4.45	****		1.80		0.49		0.12	
00031633	N	160		21.00	4.39	****		1.40		0.49		0.22	

ONTARIO MINISTRY OF THE ENVIRONMENT
 APFOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
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REGION-NW STATION-DORION MIC TYPE A SITE NO. 1

SAMPLE NUMBER	CHLORIDE MG/L	KJELDAHL MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	PHOSPHOR MG/L	MANGANESE MG/L
00031620	0.42	0.460	0.030	<T	0.020	0.305	0.340	0.004
00031622	0.20	0.370	0.030	<T	0.010	0.090	0.230	0.003
00031623	0.54	115	0.010	<T	0.005	0.395	0.010	<
00031624	0.49	115	0.075	0.085	0.380	0.555	115	0.001
00031625	0.06	1.100	0.140	0.090	0.075	0.740	0.034	0.002
00031626	0.07	0.350	0.025	0.060	0.025	0.265	<T	0.003
00031627	0.01	0.400	0.050	0.030	0.033	0.360	<T	0.002
00031628	0.22	0.390	0.020	0.045	0.033	0.225	0.017	0.007
00031629	0.03	0.250	0.030	0.025	<T	0.110	<T	0.001
00031630	0.01	0.140	0.025	0.005	0.035	0.200	<T	0.004
00031631	0.07	0.260	0.025	<T	0.035	0.225	<T	0.002
00031632	0.23	0.470	0.015	<T	0.075	0.395	<T	<
00031633	0.51	0.230	0.010	<T	0.005	<T	0.034	0.001
21NC			LEAD		VANADIUM	ALUMINIUM	COPPER	ACIDITY GRAM
SAMPLE NUMBER	NICKEL MG/L	ZINC MG/L	IRON MG/L	LEAD MG/L	VANADIUM MG/L	ALUMINIUM MG/L	COPPER MG/L	ACIDITY GRAM UG/L
00031620	<	0.0002	0.018	1DT	<	0.098	1DT	60.00
00031622	0.0003	1DT	0.007	1DT	<	0.030	1DT	71.90
00031623	0.0002	<	0.012	<	<	0.102	0.0038	31.40
00031624	0.0004	0.0004	0.005	0.003	0.004	0.114	1DT	107.00
00031625	0.0005	0.003	0.020	0.002	0.004	0.028	0.0018	20.20
00031626	0.0004	1DT	0.022	1DT	<	0.016	<	0.0008
00031627	0.0004	0.001	0.043	1DT	<	0.030	1DT	36.30
00031628	0.0005	0.006	0.012	0.016	0.004	0.012	0.0005	38.40
00031629	0.0002	0.006	0.011	0.012	0.004	0.008	1DT	25.10
00031630	0.0003	0.002	0.005	0.009	0.004	<	0.0004	36.30
00031631	<	0.002	0.011	0.012	0.004	0.008	1DT	32.10
00031632	0.0002	0.002	0.011	0.012	0.004	0.008	1DT	38.10
00031633	<	0.0002	0.011	0.012	0.004	0.013	1DT	62.30
00031633	<	0.0002	0.011	0.012	0.004	0.013	1DT	72.60

ONTARIO MINISTRY OF THE ENVIRONMENT
 APLOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 DATA LISTING
 CUMULATIVE SAMPLING ANALYSIS RESULTS

REGION-NW STATION-E.L.A. MIC TYPE A SITE NO.1												
SAMPLE NUMBER	CHLORIDE MG/L	KJELDAHL MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	PHOSPHOR MG/L	MANGANESE MG/L				
00013220	0.24	!!S	0.050	<T 0.070	0.165	0.190	!!S	0.007				
00013221	0.33	!!S	0.040	<T 0.005	0.245	<W	!!S	0.007				
00013223	0.24	0.480	0.040	<T 0.015	0.105	0.105	D	0.015				
00013224	0.15	0.810	<T 0.015	<T 0.010	0.060	0.670	<T 0.006	0.002				
00013225	B 3.55	!!S	!!S	!!S	!!S	!!S	!!S	0.007				
00013226	0.14	0.570	0.100	0.055	0.120	0.330	0.021	0.008				
00013227	<T 0.03	0.180	<T 0.005	0.035	0.030	0.160	<W 0.002	0.001				
00013228	<W 0.01	0.260	0.035	<T 0.015	<T 0.010	0.200	<T 0.004	0.004				
00013229	<W 0.01	0.380	0.050	0.055	<T 0.010	0.300	0.012	0.005				
00013230	0.06	0.330	0.030	0.030	<T 0.015	0.295	<T 0.003	0.002				
00013231	0.10	0.420	0.045	0.045	0.080	0.280	<T 0.009	0.005				
00013232	0.18	0.500	0.065	<T 0.020	0.095	0.345	0.011	0.005				
00013233	0.30	0.580	<T 0.015	D 0.045	D 0.285	0.455	B 0.075	0.001				
00013234	0.28	0.350	D 0.080	<T 0.010	D 0.350	0.155	0.019	0.001				
SAMPLE NUMBER	NICKEL MG/L	ZINC MG/L	IRON MG/L	LEAD MG/L	VANADIUM MG/L	ALUMINUM MG/L	COPPER MG/L	ACIDITY GRAN UG/L				
00013220	< 0.0002	1DT 0.011	UG 0.091	1DT 0.005	< 0.0004	0.104	0.0014	31.40				
00013221	0.0004	1DT 0.006	0.026	1DT 0.003	< 0.0004	1DT 0.024	1DT 0.0011	30.30				
00013223	0.0004	1DT 0.007	0.018	1DT 0.003	< 0.0004	1DT 0.056	0.0014	90.90				
00013225	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	80.30				
00013226	< 0.0004	< 0.003	1DT 0.008	< 0.003	< 0.0004	1DT 0.017	1DT 0.0010	20.90				
00013227	< 0.0002	1DT 0.001	0.004	< 0.001	< 0.0004	0.009	1DT 0.0002	23.10				
00013228	0.0004	< 0.002	0.014	D 0.004	< 0.0004	1DT 0.017	< 0.0004	22.00				
00013229	0.0004	1DT 0.003	1DT 0.019	0.002	< 0.0004	1DT 0.021	< 0.0003	19.00				
00013230	0.0002	1DT 0.003	0.014	0.001	< 0.0004	0.016	0.0007	26.00				
00013231	0.0002	1DT 0.003	0.025	0.015	< 0.0004	0.023	< 0.0005	24.40				
00013232	< 0.0002	< 0.003	0.024	0.005	< 0.0004	0.017	< 0.0006	23.60				
00013233	0.0002	1DT 0.002	0.016	0.016	< 0.0004	1DT 0.018	< 0.0005	47.80				
00013234	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	62.60				

ONTARIO MINISTRY OF THE ENVIRONMENT
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----- REGION-NW STATION-EAR FALLS MIC TYPE A SITE NO.1 -----														
SAMPLE NUMBER	SUBMISSION NUMBER	LIS SAMPLE TYPE	PROJECT CODE	SUB PROJECT CODE	SAMPLE REMOVAL DATE	EXPOSURE DATE	END DATE	HR	START DATE	PREC. AT EXP.	PREC. AT EXP.	GAUGE DEPTH (MM)	EFFICIENCY %	
00013612	AF02135	PR	02	01	JAN 27, 1987	DEC 30, 1986	0900	0915	2	1	9	3.8	105.37	
00013614	AF02173	PR	02	01	FEB 24, 1987	JAN 27, 1987	0930	0900	2	1	2	16.4	58.78	
00013615	AF02190	PR	02	01	MAR 24, 1987	FEB 24, 1987	0900	0930	1		2	25.2	54.64	
00013616	AF02226	PR	02	01	APR 21, 1987	MAR 24, 1987	0900	0900	1		2	16.9	62.69	
00013617	AF02243	PR	02	01	MAY 19, 1987	APR 21, 1987	1000	0900	1		2	19.5	20.22	
00013618	AF02251	PR	02	01	JUN 16, 1987	MAY 19, 1987	0900	1000	1		2	90.0	84.63	
00013619	AF02295	PR	02	01	JUL 16, 1987	JUN 16, 1987	1000	0900	1		3	70.0	106.30	
00013620	AF02309	PR	02	01	AUG 11, 1987	JUL 16, 1987	0900	1000	1		3	57.0	77.38	
00013623	AF02330	PR	02	01	SEP 8, 1987	AUG 11, 1987	0900	0900	1		2	39.8	147.50	
00013624	AF02374	PR	02	01	OCT 6, 1987	SEP 8, 1987	0900	0900	1		2	11.7	148.21	
00013625	AF02394	PR	02	01	NOV 3, 1987	OCT 6, 1987	0900	0900	1	1	2	28.9	56.91	
00013626	AF02412	PR	02	01	DEC 1, 1987	NOV 3, 1987	0900	0900	2	1	2	20.0	77.31	
00013627	AF02439	PR	02	01	DEC 29, 1987	DEC 1, 1987	0900	0900	2	1	2	38.0	37.20	

SAMPLE NUMBER	FIELD OFFICE COMMENTS	VOLUME ML	CONDUCT	LAB-PH	ACIDITY.TFE	SULFATE	NITRATE	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	
00013612	P	130	11.00	4.88	****		0.75	0.32	0.39	0.14	0.28			
00013614		313	14.00	4.62	****		1.25	0.39	0.14	0.10	0.14			
00013615	AF1J	518	50.00	4.35	****		2.10	0.62	0.10	0.44	0.44			
00013616		344	43.56	4.07	****		4.10	0.64	0.10	0.44	0.44			
00013617	NH	128	UG	5.61	****	UG	4.10	UG	1.11	UG	1.04			
00013618	CA	2473	6.57	D	6.45	****	0.65	0.12	0.14	0.14	0.14			
00013619	C	2416	8.00	5.25	****		0.60	0.14	0.14	0.06	0.06			
00013620	AC	1432	8.00	5.25	****		0.95	0.21	0.18	0.18	0.18			
00013623	NH	1906	5.00	D	5.85	****	0.70	0.15	0.15	0.20	0.20			
00013624	C	563	7.00	5.81	****		1.25	0.18	D	0.48	0.48			
00013625	NH	554	9.00	5.08	****		1.15	0.26	<T	0.08	0.08			
00013626	G	502	9.00	4.61	****		0.95	0.27	<T	0.10	0.10			
00013627	N	439	13.00	4.55	****		1.10	0.34						

ONTARIO MINISTRY OF THE ENVIRONMENT
 APIS - ACIDIC PRECIPITATION IN ONTARIO STUDY
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REGION-NW STATION-EAR FALLS HIC TYPE A SITE NO.1												
SAMPLE NUMBER	CHLORIDE MG/L	KJELDHAL MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	PHOSPHOR MG/L	MANGANESE MG/L				
00013612	0.33	<T	0.090	0.045	<T	0.010	0.225	<T	0.005	<W	0.002	0.006
00013614	0.19	0.310	<T	0.025	<T	0.015	0.095	0.230	0.006	<T	0.006	0.002
00013615	0.24	0.530	<T	0.010	<T	0.020	0.150	0.420	0.012	0.420	0.012	0.002
00013616	0.48	0.220	0.065	<T	0.005	0.385	0.140	0.018	0.018	0.140	0.018	0.009
00013617	D	UG	1.530	UG	0.275	B	1.400	UG	1.400	0.024	0.024	****
00013618	<T	0.05	0.510	<T	0.010	0.070	0.035	0.360	D	0.069	0.069	0.002
00013619	<T	0.02	0.160	<T	0.025	<T	0.020	0.115	<T	0.002	0.002	0.002
00013620	<W	0.01	0.250	0.040	0.045	0.030	0.230	<T	0.005	<T	0.005	0.003
00013623	<T	0.02	0.250	0.045	0.040	0.030	0.210	<T	0.004	0.014	0.014	B
00013624	0.12	0.320	D	0.125	B	0.280	LG	0.065	0.330	<T	0.006	0.002
00013625	0.19	0.430	<T	0.020	0.065	0.110	0.045	0.240	0.012	<T	0.012	<T
00013626	0.12	0.360	<T	0.005	<T	0.010	0.045	0.045	0.008	<T	0.008	0.002
00013627	0.15	0.160	IRON	LEAD	VANADIUM	ALUMINIUM	COPPER	ACIDITY GRAN				
SAMPLE NUMBER	NICKEL MG/L	ZINC MG/L	IRON MG/L	LEAD MG/L	VANADIUM MG/L	ALUMINIUM MG/L	COPPER MG/L	ACIDITY GRAN UG/L				
00013612	0.0002	1DT	UG	1DT	<	0.0004	UG	0.0125	37.50			
00013614	0.0005	1DT	0.006	1DT	0.003	0.004	1DT	0.0028	47.40			
00013615	D	0.0008	0.022	0.004	<	0.0004	1DT	0.0025	71.30			
00013616	0.0006	1DT	0.003	0.005	<	0.0004	1DT	0.0013	116.00			
00013617	0.0002	1DT	0.001	0.006	<	0.0004	1DT	0.0005	27.40			
00013618	<	0.0002	1DT	0.001	<	0.0004	1DT	0.0005	21.10			
00013619	0.0004	<	0.001	0.002	<	0.0004	1DT	0.0002	23.20			
00013620	D	0.0007	0.002	1DT	0.002	0.0004	1DT	0.0002	25.00			
00013623	0.0002	1DT	0.002	1DT	0.002	0.0004	1DT	0.0005	22.00			
00013624	0.0002	B	0.015	0.026	<	0.0004	B	0.063	31.00			
00013625	<	0.0003	0.033	0.033	0.026	0.0004	1DT	0.0004	31.00			
00013626	<	0.0002	0.011	D	0.035	<	1DT	0.0005	34.20			
00013627	0.0002	<	0.003	1DT	0.038	0.0004	1DT	0.0006	38.80			
00013627	0.0007	1DT	0.007	0.007	<	0.0004	1DT	0.0020	50.60			

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APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
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REGION-NW STATION-GERALTON MIC TYPE A SITE NO. 1														
SAMPLE NUMBER	SUBMISSION NUMBER	LIS TYPE	PROJECT SUB CODE	SAMPLE PROJECT CODE	SAMPLE REMOVAL DATE	EXPOSURE DATE	SAMPLE END HR	START TYPE	PREC. AT EXP	PREC. AT REM.	GAUGE TYPE	DEPTH (MM)	EFFICIENCY %	
000013360	AF02135	PR	02	01	JAN 27, 1987	DEC 30, 1986	1630	2	1	2	5.5	29.68		
000013362	AF02173	PR	02	01	FEB 24, 1987	JAN 27, 1987	1540	2	2	2	19.2	45.08		
000013364	AF02190	PR	02	01	MAR 23, 1987	FEB 24, 1987	1940	3	2	2	13.2	35.70		
000013366	AF02226	PR	02	01	APR 21, 1987	MAR 23, 1987	1845	1	2	2	14.2	46.85		
000013368	AF02243	PR	02	01	MAY 19, 1987	APR 21, 1987	1300	1	9	9	19.4	54.14		
000013370	AF02251	PR	02	01	JUN 15, 1987	MAY 19, 1987	1522	1	2	2	64.0	78.64		
000013372	AF02295	PR	02	01	JUL 14, 1987	JUN 16, 1987	1340	1	1	3	62.0	99.16		
000013375	AF02309	PR	02	01	AUG 11, 1987	JUL 14, 1987	1600	1	3	3	75.0	52.85		
000013377	AF02330	PR	02	01	SEP 8, 1987	AUG 11, 1987	1220	1	9	9	76.8	89.87		
000013379	AF02334	PR	02	01	OCT 6, 1987	SEP 8, 1987	1235	1	3	3	120.0	65.01		
000013381	AF02394	PR	02	01	NOV 3, 1987	OCT 6, 1987	1203	1	2	2	25.7	85.69		
000013383	AF02412	PR	02	01	DEC 1, 1987	NOV 3, 1987	1440	3	1	2	23.9	47.17		
000013385	AF02439	PR	02	01	DEC 29, 1987	DEC 1, 1987	1650	2	2	2	58.0	32.50		
SAMPLE NUMBER	FIELD COMMENTS	OFFICE COMMENTS	VOLUME ML	CONDUCT	LAB.PH	ACIDITY.TFE	SULFATE	MG/L	NITRATE	MG/L	CALCIUM	MG/L		
000013360	N	53		20.00	4.52	****		1.55	0.41		0.26			
000013362	N	281		11.00	4.77	****		0.65	0.35		0.26			
000013364	NC	153		35.00	4.68	****		1.15	0.29		0.16			
000013366	P	216		32.10	4.29	****		3.95	0.55		0.60			
000013368	AQ	341		17.29	6.57	****	UG	2.80	0.54	UG	1.10			
000013370	ACI	1634		10.73	4.72	****		1.00	0.16		0.10			
000013373	C	1996		8.50	5.11	****		0.70	0.17	<T	0.06			
000013375	C	1287		10.50	4.79	****		1.05	0.22		0.28			
000013377	C	2241		8.00	4.95	****		0.95	0.15		0.14			
000013379	G	2533		4.50	5.28	****		0.70	0.13		0.12			
000013381	G	715		12.00	4.61	****		1.55	0.16	<T	0.08			
000013383	G	366		10.00	4.69	****		1.05	0.25	<T	0.10			
000013385	N	612		23.00	4.27	****		1.05	0.60		0.10			

ONTARIO MINISTRY OF THE ENVIRONMENT
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
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REGION-NW STATION-LAC LA CROIX MIC TYPE A SITE NO.1													
SAMPLE NUMBER	SUBMISSION NUMBER	ILIS TYPE	PROJECT CODE	SUB CODE	SAMPLE REMOVAL DATE	EXPOSURE DATE	END HR	START HR	PREC. TYPE	PREC. EXP	GAUGE DEPTH (MM)	EFFICIENCY %	
00095099	AP02135	PR	02	01	JAN 27, 1987	DEC 30, 1986	0600	0800	2		2	2.0	261.80
00095100	AP02173	PR	02	01	FEB 27, 1987	JAN 27, 1987	1530	0800	3	1	2	23.0	60.13
00095102	AP02190	PR	02	01	MAR 24, 1987	FEB 27, 1987	1430	1530	1		2	18.0	79.40
00095103	AP02226	PR	02	01	APR 21, 1987	MAR 24, 1987	0800	1430	1		2	8.2	62.35
00095104	AP02295	PR	02	01	MAY 19, 1987	APR 21, 1987	0800	0800	1		3	15.2	191.49
00095105	AP02295	PR	02	01	JUN 16, 1987	MAY 19, 1987	0900	0800	1		3	123.0	67.43
00095106	AP02295	PR	02	01	JUL 14, 1987	JUN 16, 1987	0800	0900	1		3	46.0	90.86
00095107	AP02330	PR	02	01	AUG 11, 1987	JUL 14, 1987	0800	0800	1		9	156.9	51.22
00095108	AP02330	PR	02	01	SEP 8, 1987	AUG 11, 1987	0800	0800	1		9	120.3	51.41
00095109	AP02412	PR	02	01	OCT 6, 1987	SEP 8, 1987	1000	0800	3		9	45.4	101.69
00095110	AP02412	PR	02	01	NOV 3, 1987	OCT 6, 1987	0800	1000	3	1	2	14.4	83.42
00095111	AP02475	PR	02	01	DEC 10, 1987	NOV 3, 1987	0800	0800	2		2	15.1	79.96
00095112	AP02475	PR	02	01	DEC 29, 1987	DEC 10, 1987	0800	0800	2		2	7.4	8.32
SAMPLE COMMENTS													
NUMBER	FIELD	OFFICE	VOLUME	ML	CONDUCT	LAB.PH	ACIDITY.TFE	SULFATE	NITRATE	CALCIUM			
					UMHO/CM			MG/L	MG/L	MG/L			
00095099	P		170		7.67	4.96	****	0.45	LG	0.16	0.12		
00095100		Z	449		23.00	4.34	****	1.65		0.57	<T	0.10	
00095102		CZ	464		22.00	4.09	****	3.90		0.59		0.14	
00095103	C	HC	166		24.65	4.89	****	3.35		0.52		0.66	
00095104		N	945		9.50	5.69	****	1.30		0.37		0.30	
00095105			2693		8.00	5.22	****	0.95		0.23		0.14	
00095106		H	1357		7.00	5.18	****	0.70		0.20		0.14	
00095107		H	2609		8.50	5.62	****	1.30		0.22		0.22	
00095108		H	2008		7.50	5.11	****	0.95		0.22		0.22	
00095109			1499		7.00	4.86	****	0.80	LG	0.08	<T	0.08	
00095110	CQ		390		7.00	6.15	****	1.25		0.30		0.66	
00095111		Z	392		24.00	4.35	****	2.60		0.55		0.38	
00095112	G	XZ	20		****	****	****	****		****		****	

[illegible]

ONTARIO MINISTRY OF THE ENVIRONMENT
AFIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

DATA LISTING
CUMULATIVE SAMPLING ANALYSIS RESULTS

----- REGION-NW STATION-OTTER ISLAND MIC TYPE A SITE NO.1 -----

SAMPLE NUMBER	SUBMISSION NUMBER	LIS TYPE	PROJECT CODE	SUB CODE	SAMPLE REMOVAL DATE	EXPOSURE DATE	END HR	SAMPLE START HR	PREC. TYPE	PREC. AT EXP	PREC. AT REM.	GAUGE DEPTH (MM)	GAUGE TYPE	EFFICIENCY %
00031026	AF02251	PR	02	01	MAY 19, 1987	APR 21, 1987	0900	1400	1			31.0	2	16.10
00031027	AF02251	PR	02	01	JUN 16, 1987	MAY 19, 1987	0900	0900	1			59.0	2	96.26
00031028	AF02295	PR	02	01	JUL 14, 1987	JUN 16, 1987	0900	0900	1			74.1	9	83.55
00031029	AF02295	PR	02	01	AUG 11, 1987	JUL 14, 1987	0900	0900	1			131.0	1	29.48
00031030	AF02330	PR	02	01	SEP 8, 1987	AUG 11, 1987	0900	0900	1			72.6	9	110.98
00031031	AF02394	PR	02	01	OCT 6, 1987	SEP 8, 1987	0900	0900	3			64.7	9	39.70
00031032	AF02394	PR	02	01	NOV 2, 1987	OCT 6, 1987	0900	0900	3			37.1	9	83.43
CONDUCT														
LAB-PH														
ACIDITY.TFE														
SULFATE														
MG/L														
NITRATE														
MG/L														
CALCIUM														
MG/L														
UNHIO/CM														
00031026		NIM		162	11.24	UG	5.94	*****		1.65		0.30		0.42
00031027	CDG	HM		1844	28.10		4.24	*****		3.15		0.38	D	0.26
00031028	DP			2010	13.00		4.70	*****		1.55		0.27		0.18
00031029	PCD			1254	21.00		4.64	*****		2.20		0.38		0.30
00031030	ACF			2616	21.00		4.53	*****		2.50		0.38		0.38
00031031				834	1G	7.00	5.13	*****		1.30		0.19		0.24
00031032				1005	21.00		4.56	*****		2.55		0.50		0.40

ONTARIO MINISTRY OF THE ENVIRONMENT
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
DATA LISTING
CUMULATIVE SAMPLING ANALYSIS RESULTS

REGION-NW STATION-OTTER ISLAND MIC TYPE A SITE NO. 3

SAMPLE NUMBER	CHLORIDE MG/L	KJELDAHL MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	PHOSPHOR MG/L	MANGANESE MG/L
00031026	<T	0.02	0.085	0.105	0.060	0.540	115	0.014
00031027	<T	0.02	0.045	0.045	0.040	0.530	<W	0.002
00031028	0.09	0.360	0.030	<T	0.030	0.340	<W	0.002
00031029	0.09	0.430	0.040	0.075	0.030	0.420	<T	0.003
00031030	0.07	0.380	0.060	0.075	0.010	0.380	<T	0.003
00031031	D	0.06	0.045	0.045	0.045	0.170	<T	0.004
00031032	0.09	0.490	0.070	0.035	0.035	0.435	<T	0.004
			IRON	LEAD	VANADIUM	ALUMINUM	COPPER	ACIDITY GRAN
SAMPLE NUMBER	NICKEL MG/L	ZINC MG/L	IRON MG/L	LEAD MG/L	VANADIUM MG/L	ALUMINUM MG/L	COPPER MG/L	ACIDITY GRAN UG/L
00031026	0.0002	1DT	0.146	1DT	D	UG	0.0038	LG
00031027	< 0.0002	1DT	0.009	D	< 0.0004	0.180	0.0010	72.80
00031028	0.0005	< 0.001	0.011	1DT	< 0.0004	1DT	< 0.0003	44.10
00031029	0.0005	< 0.002	0.020	1DT	< 0.0004	1DT	< 0.0004	47.70
00031030	0.0002	< 0.002	0.017	1DT	< 0.0004	1DT	0.016	54.40
00031031	0.0002	< 0.002	0.021	0.007	< 0.0004	1DT	0.0018	33.00
00031032	< 0.0002	1DT	0.019	0.007	< 0.0004	0.014	1DT	57.30

ONTARIO MINISTRY OF THE ENVIRONMENT
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

DATA LISTING

CUMULATIVE SAMPLING ANALYSIS RESULTS

REGION-NW STATION-PICKLE LAKE MIC TYPE A SITE NO.1

SAMPLE NUMBER	SUBMISSION NUMBER	LIS TYPE	PROJECT CODE	SUR CODE	SAMPLE REMOVAL DATE	EXPOSURE		PREC. PREC.	PREC. PREC.	GAUGE AT	EFFICIENCY %
						DATE	END HR	START HR	TYPE	DEPTH (MM)	
00013853	AP02135	PR	02	01	JAN 27, 1987	DEC 30, 1986	1330	1030	2	2	18.7
00013854	AP02173	PR	02	01	FEB 24, 1987	JAN 27, 1987	1500	1330	2	2	20.9
00013855	AP02190	PR	02	01	MAR 25, 1987	FEB 24, 1987	1500	1500	2	1	6.34
00013856	AP02226	PR	02	01	APR 21, 1987	MAR 25, 1987	1530	1500	3	1	54.53
00013857	AP02243	PR	02	01	MAY 19, 1987	APR 21, 1987	1400	1530	1	2	12.5
00013858	AP02251	PR	02	01	JUN 17, 1987	MAY 19, 1987	1430	1400	1	2	38.7
00013859	AP02295	PR	02	01	JUL 14, 1987	JUN 17, 1987	1400	1430	1	2	89.58
00013861	AP02309	PR	02	01	AUG 11, 1987	JUL 14, 1987	1450	1430	1	3	55.0
00013862	AP02330	PR	02	01	SEP 8, 1987	AUG 11, 1987	0930	1450	1	9	131.54
00013863	AP02330	PR	02	01	OCT 6, 1987	SEP 8, 1987	1430	0930	1	3	89.47
00013864	AP02374	PR	02	01	NOV 3, 1987	OCT 6, 1987	1430	1430	3	1	80.2
00013865	AP02394	PR	02	01	DEC 1, 1987	NOV 3, 1987	1215	1430	2	2	14.5
00013866	AP02412	PR	02	01	DEC 29, 1987	DEC 1, 1987	1045	1215	2	1	25.3
00013867	AP02439	PR	02	01	CONDUCT	ACIDITY.TFE				2	33.0
LAB.PH											
UMHIO/CM											
00013853	C	N	151		15.10	5.02	****	****	1.65	0.58	0.84
00013854	FJ		43		IIS	IIS	****	****	IIS	****	****
00013855	FI	C	239		8.00	4.35	****	****	1.25	0.54	0.12
00013856	GE		2		****	****	****	****	****	****	****
00013857	AC	HM	967		9.18	5.51	****	****	1.30	0.23	0.42
00013858	CA	HC	2414		7.15	5.27	****	****	0.65	0.10	0.16
00013861	ACQ	NC	2349		4.50	5.30	****	****	0.30	0.08	0.04
00013862			2275		6.00	5.41	****	****	0.75	0.16	0.14
00013863			2684		4.50	5.27	****	****	0.50	0.10	0.06
00013864			1854		3.00	5.72	****	****	0.55	0.08	0.14
00013865			366		7.50	5.08	****	****	1.10	0.18	0.18
00013866	G		18		INR	INR	****	****	INR	****	****
00013867		N	532		9.00	4.70	****	****	0.50	0.26	0.08

ONTARIO MINISTRY OF THE ENVIRONMENT
 APROS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 DATA LISTING
 CUMULATIVE SAMPLING ANALYSIS RESULTS

REGION-NW STATION-PICKLE LAKE MIC TYPE A SITE NO. 1

SAMPLE NUMBER	CHLORIDE MG/L	KJELDHAL MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	PHOSPHOR MG/L	MANGANESE MG/L
00013853	0.46	0.360	UG 0.180	<T 0.020	0.400	0.110	D 0.011	0.007
00013854	IIS	IIS	IRE	IRE	IRE	IIS	IIS	IIS
00013855	0.46	0.300	0.025	D 0.105	0.250	0.040	0.011	0.002
00013856								
00013857	<T 0.05	0.370	0.075	0.045	0.065	0.275	<T 0.008	0.006
00013858	<T 0.05	0.250	0.035	0.035	<T 0.020	0.105	0.025	0.001
00013861	<W 0.01	0.090	<T 0.010	<T 0.010	0.015	0.185	<T 0.002	< 0.001
00013862	<W 0.01	0.230	0.035	0.030	<T 0.015	0.185	<T 0.006	0.003
00013863	<W 0.01	0.110	<T 0.010	0.025	0.035	0.090	<T 0.003	0.001
00013864	<T 0.01	0.130	0.035	<T 0.015	0.035	0.095	<T 0.006	0.003
00013865	0.25	0.300	0.040	<T 0.020	0.165	0.205	<T 0.007	0.001
00013866	IIR	IIR	IIR	IIR	IIR	IIR	IIR	IIR
00013867	0.11	<T 0.070	<T 0.005	<W 0.005	0.085	<T 0.005	<T 0.009	< 0.001
SAMPLE NUMBER	NICKEL MG/L	ZINC MG/L	IRON MG/L	LEAD MG/L	VANADIUM MG/L	ALUMINUM MG/L	COPPER MG/L	ACIDITY GRAN UG/L
00013853	< 0.0002	0.017	0.071	< 0.009	0.0004	L 0.048	0.0019	33.10
00013854	IIS	IIS	0.026	IIS	IIS	IIS	IIS	IIS
00013855	< 0.0002	1DT 0.010	0.026	1DT 0.003	< 0.0004	1DT 0.046	1DT 0.0031	67.50
00013856								
00013857	< 0.0004	< 0.002	1DT 0.004	1DT 0.002	< 0.0004	0.028	1DT 0.0005	25.90
00013858	< 0.0002	1DT 0.003	1DT 0.008	1DT 0.001	< 0.0004	0.017	< 0.0007	25.60
00013861	< 0.0004	1DT 0.001	1DT 0.006	1DT 0.001	< 0.0004	1DT 0.009	< 0.0003	22.00
00013862	< 0.0005	1DT 0.001	1DT 0.015	1DT 0.001	< 0.0004	1DT 0.017	< 0.0003	21.90
00013863	< 0.0002	1DT 0.002	1DT 0.009	0.007	< 0.0004	1DT 0.008	1DT 0.0002	25.20
00013864	< 0.0002	< 0.002	0.010	< 0.004	< 0.0004	1DT 0.015	1DT 0.0004	20.40
00013865	0.0002	< 0.004	0.013	0.006	< 0.0004	1DT 0.018	1DT 0.0008	32.80
00013866								
00013867	< 0.0002	< 0.003	0.014	0.010	< 0.0004	1DT 0.017	0.0027	42.60

ONTARIO MINISTRY OF THE ENVIRONMENT
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
DATA LISTING
CUMULATIVE SAMPLING ANALYSIS RESULTS

REGION-WN STATION-QUETICO CENTRE MIC TYPE A SITE NO.1													
SAMPLE NUMBER	SUBMISSION NUMBER	LIS SAMPLE TYPE	PROJECT CODE	SUB PROJECT CODE	SAMPLE REMOVAL DATE	EXPOSURE DATE	END HR	PREC. SAMPLE TYPE	PREC. AT EXP	GAUGE DEPTH (MM)	EFFICIENCY %		
00095301	AP02135	PR	02	01	JAN 27, 1987	DEC 30, 1986	0900	0900	2	15.7	44.53		
00095302	AP02173	PR	02	01	FEB 24, 1987	JAN 27, 1987	0900	0900	2	29.8	51.57		
00095303	AP02190	PR	02	01	MAR 24, 1987	FEB 24, 1987	0900	0900	3	14.1	68.37		
00095304	AP02226	PR	02	01	APR 21, 1987	MAR 24, 1987	0900	0900	3	25.6	92.76		
00095305	AP02243	PR	02	01	MAY 19, 1987	APR 21, 1987	0900	0900	1	80.0	85.85		
00095306	AP02251	PR	02	01	JUN 16, 1987	MAY 19, 1987	0900	0900	1	46.39	95.25		
00095307	AP02295	PR	02	01	JUL 14, 1987	JUN 16, 1987	0900	0900	1	122.0	95.25		
00095308	AP02309	PR	02	01	AUG 11, 1987	JUL 14, 1987	0900	0900	1	131.3	104.25		
00095309	AP02330	PR	02	01	SEP 8, 1987	AUG 11, 1987	0900	0900	1	32.4	139.93		
00095310	AP02374	PR	02	01	OCT 6, 1987	SEP 8, 1987	0900	0900	3	40.7	63.42		
00095312	AP02394	PR	02	01	NOV 3, 1987	OCT 6, 1987	0900	0900	3	1	2	19.7	86.65
00095313	AP02412	PR	02	01	DEC 1, 1987	NOV 3, 1987	0900	0900	2	2	14.0	60.28	
00095314	AP02439	PR	02	01	DEC 29, 1987	DEC 1, 1987	0900	0900	2				
CONDUCT													
LAB-PH													
ACIDITY, TFE													
SULFATE													
MG/L													
NITRATE													
MG/L													
CALCIUM													
MG/L													
UNHQ/CN													
00095301	P		227		10.60	4.77	****	0.65	0.29		0.14		
00095302			499		25.00	4.31	****	1.80	0.77		0.26		
00095303			313		36.00	4.08	****	3.80	0.57		0.18		
00095304			78		33.24	4.33	****	4.10	0.73	B	1.06		
00095305	AQC	H	771		10.80	6.31	****	1.40	0.35		0.44		
00095306			2230		11.24	4.69	****	1.05	0.19		0.18		
00095307	G	HC	723		12.00	4.94	****	0.95	0.24		0.16		
00095308	IM		3773		7.50	5.19	****	0.95	0.21		0.16		
00095309			4444		7.00	5.05	****	0.90	0.16		0.14		
00095310		NHCM	1472		6.00	4.95	****	1.25	0.19		0.22		
00095312	H		838		8.50	6.55	****	1.70	0.35		0.72		
00095313	CD		567		20.00	4.41	****	2.25	0.43		0.24		
00095314	M		274		13.00	4.72	****	1.05	0.35		0.20		

REGION=NW STATION=QUETICO CENTRE MIC TYPE A SITE NO.1

SAMPLE NUMBER	CHLORIDE MG/L	KIEHLDAHL MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	PHOSPHOR MG/L	MANGANESE MG/L
00095301	0.17	0.150	<T	0.015	0.005	0.095	<W	0.002
00095302	0.22	0.460	0.040	0.040	0.030	0.115	<W	0.007
00095303	0.24	0.430	0.040	<T	0.005	0.115	<T	0.008
00095304	0.70	0.115	D	0.115	0.060	D	0.260	D
00095305	0.11	0.860	0.070	0.115	0.095	0.820	0.200	0.004
00095306	<T	0.030	0.030	0.065	0.065	0.130	<W	0.002
00095307	<W	0.280	0.030	D	0.075	0.210	<T	0.005
00095308	<W	0.280	0.035	<T	0.020	0.230	<T	0.003
00095309	<T	0.230	<T	<T	<W	0.200	<T	0.002
00095310	0.09	0.180	0.045	0.075	<T	0.100	<T	0.001
00095312	0.14	0.420	0.170	0.070	0.075	0.240	0.002	0.001
00095313	0.09	0.470	<T	<T	0.020	0.375	<T	0.001
00095314	0.17	0.160	0.030	<T	0.010	<T	0.015	D
SAMPLE	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINUM	COPPER	ACIDITY GRAN
NUMBER	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L
00095301	<	1DT	0.026	<	0.005	0.049	<	38.00
00095302	0.0002	1DT	0.016	1DT	0.003	0.025	1DT	0.0082
00095303	0.0002	1DT	0.032	1DT	0.003	0.054	1DT	0.0012
00095304	0.0002	0.005	0.005	0.005	0.004	0.076	0.007	77.20
00095305	<	1DT	0.005	<	0.004	UG	0.007	25.70
00095306	0.0002	<	1DT	<	0.004	UG	0.007	39.20
00095307	0.0004	0.001	0.026	1DT	<	1DT	<	36.40
00095308	0.0004	1DT	0.013	1DT	0.004	1DT	<	24.70
00095309	<	0.002	D	0.093	<	1DT	0.0003	29.50
00095310	<	1DT	0.007	1DT	0.015	<	1DT	0.0016
00095311	0.0002	<	0.054	0.008	<	1DT	0.0016	31.80
00095312	<	0.002	0.045	1DT	<	1DT	0.0036	19.70
00095313	<	1DT	0.048	1DT	0.002	0.019	1DT	65.60
00095314	<	0.005	0.038	D	0.021	1DT	0.0037	49.00

PART VI

SOUTHEASTERN REGION CUMULATIVE AMBIENT AIR CONCENTRATION RESULTS

ONTARIO MINISTRY OF THE ENVIRONMENT
 APLOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 DATA LISTING
 CUMULATIVE SAMPLING ANALYSIS RESULTS

REGION-SE STATION-CLOYNE MIC TYPE A SITE NO.1												
SAMPLE NUMBER	SUBMISSION NUMBER	LIS TYPE	PROJECT SUB CODE	SAMPLE REMOVAL DATE	EXPOSURE DATE	SAMPLE END HR	PREC. START TYPE AT	PREC. AT EXP	PREC. GAUGE DEPTH (MM)	%	EFFICIENCY	
00024586	AP02121	PR	02	01	JAN 27, 1987	DEC 30, 1986	1245	1100	3	2	35.0	74.89
00024584	AP02167	PR	02	01	FEB 24, 1987	JUN 27, 1987	0800	1400	2	2	4.7	341.42
00024609	AP02203	PR	02	01	MAR 24, 1987	FEB 24, 1987	1100	0800	3	3	25.0	74.41
00024615	AP02457	PR	02	01	APR 24, 1987	MAR 24, 1987	1600	1100	1	*	106.8	
00024619	AP02457	PR	02	01	MAY 19, 1987	APR 24, 1987	1815	1600	1	3	57.0	97.70
00024632	AP02255	PR	02	01	JUN 16, 1987	MAY 19, 1987	1700	1845	1	2	80.0	92.82
00069014	AP02374	PR	02	01	JUL 16, 1987	JUN 16, 1987	2000	1700	1	0	120.0	90.19
00069016	AP02374	PR	02	01	AUG 12, 1987	JUL 16, 1987	1000	2000	1	0	42.0	*
00069027	AP02374	PR	02	01	SEP 8, 1987	AUG 12, 1987	1230	1000	1	0	82.3	193.34
00094393	AP02457	PR	02	01	NOV 3, 1987	SEP 8, 1987	0900	1230	1	0	106.7	77.58
00094382	AP02457	PR	02	01	DEC 1, 1987	NOV 3, 1987	1530	0900	1	1	0	81.95
00094449	AP02548	PR	02	01	DEC 29, 1987	DEC 1, 1987	1800	1530	3	2	46.0	81.95
SAMPLE NUMBER	FIELD OFFICE COMMENTS	VOLUME ML	CONDUCT UMH/CM	LAB.PH	ACIDITY.TFE	SULFATE MG/L	NITRATE MG/L	CAUCIUM MG/L				
00024586	G	851	31.00	4.22	****	1.50	0.74	0.18				
00024594	G	521	34.00	4.20	****	1.85	0.93	0.26				
00024609		604	8.00	4.86	****	1.10	LG	0.01 <T				
00024615	QE	2	****	****	****	****	****	****				
00024619	C	2	38.50	4.25	****	5.25	0.88	0.74				
00024632		2411	38.15	4.08	****	4.15	0.60	0.26				
00069014	M2	3514	32.00	4.30	****	3.50	0.50	0.14				
00069016	GE	****	****	****	****	****	****	****				
00069027	GE	****	****	****	****	****	****	****				
00094393	Q	2	36.50	4.15	****	3.60	0.70	0.50				
00094382		2688	14.50	4.53	****	1.40	0.31 <T	0.08				
00094449		1224	30.00	4.27	****	2.00	0.56	0.14				

ONTARIO MINISTRY OF THE ENVIRONMENT
AFIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
DATA LISTING
CUMULATIVE SAMPLING ANALYSIS RESULTS

REGION-SE STATION-CLOYNE MIC TYPE A SITE NO.1									
SAMPLE NUMBER	CHLORIDE MG/L	KUJIDAIL MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	PHOSPHOR MG/L	MANGANESE MG/L	
00024586	0.42	0.270	<T	0.020	D	0.310	0.185	<T	0.009
00024594	0.60	0.530	<T	0.025		0.410	0.300	<T	0.005
00024609	0.43	0.410	<T	0.010	D	0.050	0.050	0.022	0.002
00024615	0.19	0.170	0.120	0.090	0.050	0.900	0.025	0.025	0.014
00024619	0.15	0.610	0.115	0.035	0.040	0.575	<W	0.002	0.004
00024632	0.19	0.410	0.050	0.025	<T	0.350	<T	0.003	0.003
00069014	0.19	0.410	0.050	0.025	0.025	0.350	0.003	0.003	0.003
00069016	0.19	0.410	0.050	0.025	0.025	0.350	0.003	0.003	0.003
00069027	0.39	0.470	0.050	0.040	0.040	0.400	0.010	0.010	0.003
00094393	0.13	0.190	<T	0.015	0.010	0.170	<W	0.002	<
00094382	0.37	0.320	<T	0.020	D	0.200	<T	0.003	0.001
00094449	0.37	0.320	<T	0.020	0.030	0.215	COPPER	ACIDITY GRAN	
SAMPLE NUMBER	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINUM			
SAMPLE NUMBER	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	
00024586	0.0002	1DT	0.009	D	0.061	<	0.0004	0.0019	86.40
00024594	<	1DT	0.009	0.036	0.007	0.0004	1DT	0.0016	88.30
00024609	0.0014	1DT	0.010	0.015	<	0.0004	1DT	0.0020	38.60
00024615	0.0004	0.042	0.005	0.042	0.010	0.0004	0.036	0.0007	96.50
00024619	0.0004	1DT	0.005	0.010	0.001	<	0.035	0.0007	96.10
00024632	<	1DT	0.004	0.023	0.001	0.0004	0.035	0.0007	90.30
00069014	0.0004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004
00069016	0.0004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004
00069027	0.0004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004
00094393	<	1DT	0.002	0.013	1DT	0.001	0.008	1DT	0.0003
00094382	<	<	0.001	0.010	1DT	0.005	<	<	0.0003
00094449	<	1DT	0.014	0.028	<	0.0004	1DT	<	0.0004

REGION=SE STATION=DALHOUSE MILLS MIC TYPE A SITE NO.1

SAMPLE NUMBER	SUBMISSION NUMBER	IIS SAMPLE TYPE	PROJECT CODE	SUB PROJECT CODE	SAMPLE REMOVAL DATE	EXPOSURE DATE	SAMPLE END HR	SAMPLE START HR	PREC. TIME AT EXP.	PREC. TYPE	GUAUGE DEPTH (MM)	EFFICIENCY %
00024585	AP02121	PR	02	01	JAN 27, 1987	DEC 30, 1986	0830	0900	3	2	28.0	46.20
00024533	AP02167	PR	02	01	FEB 24, 1987	JUN 27, 1987	0800	0900	2	2	46.7	18.56
00024533	AP02203	PR	02	01	MAR 24, 1987	MAY 24, 1987	0800	0900	3	3	27.0	32.17
00024603	AP02203	PR	02	01	MAR 24, 1987	MAY 24, 1987	0800	0900	3	3	38.0	33.68
00024604	AP02203	PR	02	01	JUN 21, 1987	JUN 21, 1987	0800	0900	1	2	56.0	88.22
00024613	AP02457	PR	02	01	JUN 14, 1987	MAY 17, 1987	0800	0800	1	3	79.0	128.50
00063010	AP02457	PR	02	01	JUL 14, 1987	JUN 16, 1987	1800	0900	1	0	90.0	91.99
00063017	AP02374	PR	02	01	AUG 12, 1987	JUL 14, 1987	1800	1900	1	0	80.0	92.22
00063026	AP02374	PR	02	01	SEP 8, 1987	AUG 12, 1987	1800	0900	1	0	43.0	78.32
00106120	AP03182	PR	02	01	OCT 6, 1987	SEP 8, 1987	0900	1800	1	*	103.9	
00094365	AP03457	PR	02	01	NOV 3, 1987	OCT 6, 1987	0900	0900	1	3	55.0	87.81
00094375	AP03457	PR	02	01	DEC 1, 1987	NOV 3, 1987	0800	0900	1	1	94.2	84.94
00094375	AP03457	PR	02	01	DEC 29, 1987	DEC 1, 1987	0800	0900	3	2	46.0	56.71
SAMPLE NUMBER	SUBMISSION NUMBER	IIS FIELD OFFICE COMMENTS	VOLUME	CONDUCT	LAB.PH	ACIDITY.TFE	SULFATE	NITRATE	CALCIUM	MG/L	MG/L	

NUMBER	CORRECTION CODE	ML	UMHO/CM	MG/L	MG/L	MG/L
000024585	N	420	35.50	4.23	1.85	1.12
000024585	G	286	46.50	4.06	2.40	0.52
000024593	N	282	14.00	6.61	1.65	0.32
000024603	AD	418	18.00	4.45	2.10	0.26
000024604	N	418	35.50	4.34	5.15	0.76
000024613	AC	2	32.96	4.31	2.80	0.35
000094389	NZ	3296	47.00	4.30	5.30	0.20
000069010	N	2688	47.00	4.13	5.30	0.16
000069017	N	2635	26.50	4.44	3.75	0.31
000069017	N	1068	35.00	4.01	6.35	0.74
000069026	CM					
00106120	EF	1568	36.50	4.15	2.75	0.96
000094385	N	2515	15.50	4.52	1.40	0.34
000094384	P	2447	30.50	4.13	2.40	0.30
						0.32

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----- REGION-SE STATION-DALHOUSIE MILLS MIC TYPE A SITE NO.1 -----

SAMPLE NUMBER	CHLORIDE MG/L	KJELDAHL MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	PHOSPHOR MG/L	MANGANESE MG/L
00024585	0.66	0.600	UG 0.520	<T 0.015	0.240	0.130	0.018	D 0.013
00024593	0.58	0.740	D 0.165	D 0.025	0.310	0.335	0.015	D 0.009
00024603	UG 0.87	1.100	UG 0.535	0.085	0.445	0.370	0.046	D 0.004
00024604	0.46	1.15	D 0.170	0.030	0.185	0.310	115	D 0.004
00024613	0.23	1.090	0.125	0.110	UG 0.110	0.920	0.030	UG 0.014
00094369	0.06	0.350	<T 0.015	<T 0.010	<T 0.015	0.320	<T 0.004	0.004
00069010	0.07	0.570	0.030	0.030	0.025	0.475	<T 0.007	0.002
00069017	0.14	0.540	0.035	D 0.065	<T 0.015	0.500	<T 0.007	0.001
00069026	0.21	0.560	0.035	<T 0.010	0.035	0.470	<T 0.003	B 0.008
00106120	0.13	0.540	0.040	0.025	0.030	0.500	<T 0.006	0.003
00094385	0.11	0.260	<T 0.015	<T 0.010	0.050	0.240	<W 0.002	D 0.003
00094384	0.30	0.320	0.040	<T 0.015	0.155	0.220	<T 0.005	D 0.012
00094375	NICKEL	ZINC	IRON	LEAD	VANADIUM	ALUMINIUM	COPPER	ACIDITY GRAN
SAMPLE NUMBER	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L
00024585	0.0005	1DT 0.012	0.039	1DT 0.006	D 0.0007	0.065	UG 0.0134	90.20
00024593	< 0.0002	1DT 0.011	0.036	1DT 0.010	< 0.0008	D 0.075	1DT 0.0024	115.00
00024603	0.0004	1DT 0.005	0.026	< 0.005	< 0.0004	0.042	D 0.0037	16.70
00024604	< 0.0002	1DT 0.006	D 0.042	1DT 0.014	0.0004	B 0.118	1DT 0.0008	61.30
00024613	0.0003	1DT 0.010	0.023	1DT 0.003	< 0.0004	0.047	< 0.0006	84.60
00094369	< 0.0002	1DT 0.004	1DT 0.007	0.005	< 0.0004	< 0.007	< 0.0003	74.30
00069010	0.0004	0.005	0.025	1DT 0.003	< 0.0004	0.021	1DT 0.0004	116.00
00069017	0.0004	1DT 0.003	0.015	1DT 0.013	< 0.0004	1DT 0.007	1DT 0.0004	69.40
00069026	0.0007	0.012	0.028	0.021	< 0.0004	0.046	1DT 0.0013	UG 136.00
00106120	0.0002	0.011	0.018	0.004	< 0.0004	1DT 0.056	< 0.0006	101.00
00094385	< 0.0002	1DT 0.002	0.007	0.003	< 0.0004	< 0.007	< 0.0003	52.60
00094384	< 0.0002	1DT 0.008	0.024	0.003	< 0.0004	1DT 0.020	1DT 0.0012	105.00
00094375	0.0004							

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REGION-SE STATION-GOLDEN LAKE MIC TYPE A SITE NO.1														
SAMPLE NUMBER	SUBMISSION NUMBER	IIS TYPE	PROJECT CODE	PROJECT SUB CODE	SAMPLE REMOVAL DATE	EXPOSURE DATE	END HR	START HR	PREC. TYPE	PREC. AT EXP	PREC. GAUGE DEPTH (MM)	PREC. AT REM.	EFFICIENCY	%
00024589	AP02135	PR	02	01	JAN 27, 1987	DEC 30, 1986	1700	1205	2		19.1	9	68.86	
00024595	AP02173	PR	02	01	FEB 25, 1987	JAN 27, 1987	1800	1705	3		52.0	2	52.0	
00024605	AP02203	PR	02	01	MAR 24, 1987	FEB 25, 1987	0700	1805	3		31.0	3	55.14	
00024607	AP02203	PR	02	01	APR 21, 1987	MAR 24, 1987	0800	0735	3		101.0	3	78.80	
00024623	AP02457	PR	02	01	MAY 19, 1987	APR 21, 1987	1830	0800	1		69.8	9	80.09	
00024626	AP02255	PR	02	01	JUN 16, 1987	MAY 19, 1987	0700	1830	1		55.0	2	128.80	
00069012	AP02374	PR	02	01	JUL 14, 1987	JUN 16, 1987	0700	0705	1		57.0	2	57.28	
00069019	AP02374	PR	02	01	AUG 11, 1987	JUL 14, 1987	0700	0705	1		34.0	2	82.25	
00069024	AP02374	PR	02	01	SEP 9, 1987	AUG 11, 1987	1900	0705	1		71.0	2	95.18	
00094387	AP02457	PR	02	01	OCT 6, 1987	SEP 9, 1987	0730	1900	1		65.0	3	89.84	
00094378	AP02457	PR	02	01	NOV 3, 1987	OCT 6, 1987	0700	0735	1		77.0	2	34.40	
00094443	AP02548	PR	02	01	DEC 1, 1987	NOV 3, 1987	0700	0705	3		55.1	9	111.29	
					DEC 29, 1987	DEC 1, 1987	0700	0700	3		28.0	2	103.84	
SULFATE														
NITRATE														
CALCIUM														
SAMPLE NUMBER	FIELD COMMENTS	OFFICE COMMENTS	VOLUME ML	CONDUCT	LAB.PH	ACIDITY.TFE	MG/L	SULFATE	MG/L	NITRATE	MG/L	CALCIUM	MG/L	
00024589			427	23.60	4.32	****	1.25	0.64	0.76	0.64	0.76	0.26	0.12	
00024595	C		1111	24.00	4.25	****	0.95	0.70	0.12	0.70	0.12	0.04	0.04	
00024605			555	11.00	4.63	****	0.85	0.22	<T	<T	<T	0.04	0.04	
00024607	M		2584	10.00	4.53	****	1.05	LG	0.19	0.19	0.19	0.75	0.60	
00024623	CP		1815	34.50	4.28	****	4.55	0.75	0.60	0.75	0.60	0.20	0.16	
00024626	N		2300	37.05	4.10	****	5.10	0.43	0.45	0.43	0.45	0.20	0.16	
00069012	M		1060	22.20	4.44	****	2.50	0.45	0.45	0.45	0.45	0.20	0.16	
00069019	M		908	39.00	4.28	****	4.50	0.49	0.49	0.49	0.49	0.14	0.14	
00069024	CM		2194	23.00	4.28	****	3.50	0.33	0.33	0.33	0.33	0.14	0.14	
00094387			1896	26.00	4.28	****	3.10	0.57	0.57	0.57	0.57	0.08	0.08	
00094380	G		860	25.00	4.29	****	2.20	0.35	0.35	0.35	0.35	0.08	0.08	
00094378	P		1991	13.50	4.55	****	1.10	0.58	0.58	0.58	0.58	0.32	0.32	
00094443			944	24.00	4.36	****	1.40							

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REGION-SE STATION-GOLDEN LAKE MIC TYPE A SITE NO.1												
SAMPLE NUMBER	CHLORIDE MG/L	KJELDAHL MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	PHOSPHOR MG/L	MANGANESE MG/L				
00024589	0.22	0.220	0.040	<T	0.015	0.105	0.125	0.015	0.004	0.004	0.004	0.004
00024595	0.15	0.220	<T	0.015	<T	0.055	0.140	<T	0.004	0.001	0.001	0.001
00024605	0.18	0.130	<T	0.015	<T	0.050	0.060	0.010	<	0.001	<	0.001
00024607	0.14	0.120	<T	0.010	<T	0.020	0.055	<T	0.008	<	0.001	0.001
00024623	0.17	0.810	0.100	0.065	0.040	0.740	0.740	0.011	UG	0.027	UG	0.027
00024626	0.10	0.600	0.045	0.065	0.030	0.595	<T	0.008	0.001	0.003	0.003	0.003
00069012	0.12	0.300	0.035	<T	0.010	0.025	0.265	<T	0.005	0.002	0.002	0.002
00069019	0.16	0.750	0.035	0.030	0.030	0.500	<T	0.004	0.001	0.001	0.001	0.001
00069024	0.20	0.450	0.030	0.035	0.065	0.290	<T	0.008	0.001	0.001	0.001	0.001
00094367	0.07	0.400	<T	0.020	<T	0.340	<T	0.007	0.001	0.001	0.001	0.001
00094360	0.09	0.470	<T	0.015	<T	0.310	D	0.011	0.001	0.001	0.001	0.001
00094378	0.09	0.200	<T	0.005	<T	0.025	<W	0.002	0.001	0.001	0.001	0.001
00094443	0.17	0.280	0.030	<T	0.015	0.200	<T	0.003	0.001	0.001	0.001	0.001
SAMPLE NUMBER	NICKEL MG/L	ZINC MG/L	IRON MG/L	LEAD MG/L	VANADIUM MG/L	ALUMINIUM MG/L	COPPER MG/L	ACIDITY GRAN UG/L				
00024589	<	0.0002	0.010	1DT	0.003	0.0004	0.038	1DT	0.0008	69.40	69.40	69.40
00024595	D	0.0004	1DT	0.001	<	0.0004	1DT	0.011	1DT	0.0007	78.50	78.50
00024605	<	0.0002	1DT	<	0.003	<	0.0004	1DT	0.015	1DT	0.0006	42.20
00024607	<	0.0002	<	0.001	<	0.0004	0.010	0.006	0.0006	43.40	43.40	43.40
00024623	0.0004	1DT	0.004	D	0.010	<	0.0004	0.035	0.0009	86.50	86.50	86.50
00024626	<	0.0002	1DT	0.003	1DT	<	0.0004	0.024	1DT	0.0010	90.90	90.90
00069012	<	0.0004	<	0.002	0.011	<	0.0004	0.028	0.0005	69.70	69.70	69.70
00069019	0.0005	1DT	0.006	0.017	<	0.0004	0.033	1DT	0.0006	92.50	92.50	92.50
00069024	0.0002	1DT	0.011	0.010	<	0.0004	0.022	1DT	0.0003	89.70	89.70	89.70
00094387	<	0.0002	D	0.018	0.003	<	0.0004	0.008	0.0004	77.70	77.70	77.70
00094380	0.0003	D	0.021	0.035	<	0.0004	<	0.011	1DT	0.0008	76.80	76.80
00094378	0.0005	1DT	0.004	0.009	<	0.0004	<	0.008	<	0.0003	49.80	49.80
00094443	0.0002	1DT	0.008	0.014	0.009	<	0.0004	1DT	0.008	<	0.0004	67.60

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REGION-SE STATION-SMITHS FALLS MIC TYPE A SITE NO.1														
SAMPLE NUMBER	SUBMISSION NUMBER	LIS TYPE	PROJECT CODE	SUB PROJECT CODE	SAMPLE REMOVAL DATE	EXPOSURE DATE	SAMPLE END HR	PREC. START HR	PREC. TYPE AT	PREC. AT	PREC. REM.	GAUGE DEPTH (MM)	GAUGE AT	EFFICIENCY %
00024591	AP02135	PR	02	01	JAN 27, 1987	DEC 30, 1986	0955	1330	2			38.0	2	47.98
00024597	AP02173	PR	02	01	FEB 24, 1987	JAN 27, 1987	1310	0955	2			34.0	2	30.98
00024601	AP02203	PR	02	01	MAR 24, 1987	FEB 24, 1987	1002	1310	1			33.0	3	66.27
00024602	AP02240	PR	02	01	APR 21, 1987	MAR 24, 1987	1000	1002	1			68.0	3	51.00
00024624	AP02457	PR	02	01	MAY 19, 1987	APR 21, 1987	0950	1000	1			52.0	3	101.58
00024631	AP02255	PR	02	01	JUN 16, 1987	MAY 19, 1987	1000	0950	1			79.0	2	93.41
00069015	AP02374	PR	02	01	JUL 14, 1987	JUN 16, 1987	1045	1000	1			92.0	2	69.23
00069020	AP02374	PR	02	01	AUG 11, 1987	JUL 14, 1987	1050	1045	1			44.0	2	127.40
00069022	AP02374	PR	02	01	SEP 8, 1987	AUG 11, 1987	1015	1050	1			18.0	2	87.27
00094391	AF02457	PR	02	01	OCT 6, 1987	SEP 8, 1987	0915	1015	1			141.0	3	-
00094377	AF02457	PR	02	01	NOV 3, 1987	OCT 6, 1987	1125	0915	1		1	64.5	9	78.50
00094386	AF02457	PR	02	01	DEC 1, 1987	NOV 3, 1987	1015	1125	2	1		149.0	2	58.27
00094392	AF02457	PR	02	01	DEC 30, 1987	DEC 1, 1987	1545	1015	3			58.0	2	44.50
CONDUCT LAB.FH ACIDITY-TPE SULFATE NITRATE														
UMHO/CM MG/L MG/L MG/L														
00024591	N	592			34.50	4.13	****	1.60				0.91		0.20
00024597	CD	342			43.00	4.05	****	2.70				1.30		0.66
00024601		710			11.00	4.65	****	0.95				0.31		0.12
00024602		1126			14.00	4.53	****	1.45				0.26		0.10
00024624	C	1715			47.00	4.11	****	6.00				0.96		0.74
00024631		2396			29.85	4.25	****	3.60				0.50		0.42
00069015		2068			37.50	4.24	****	4.20				0.59		0.36
00069020	NM	1820			40.00	4.20	****	5.05				0.44		0.26
00069022	HCM	510			33.00	4.55	****	2.65				0.36		0.76
00094391	EG	****			****	****	****	****				****		****
00094377		1644			44.00	4.05	****	3.20				1.04		0.32
00094386		2819		1G	10.00	4.75	****	1.10				0.28		0.14
00094392	N	838			27.00	4.28	****	2.40				0.63		0.36

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REGION-SE STATION-SMITHS FALLS MIC TYPE A SITE NO.1

SAMPLE NUMBER	CHLORIDE MG/L	KJELDHAL MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	PHOSPHOR MG/L	MANGANESE MG/L
00024591	0.36	0.360	<T 0.025	<T 0.005	0.175	0.175	0.011	0.003
00024597	0.62	0.830	0.055	<T 0.015	0.365	0.490	0.022	0.004
00024601	0.21	0.200	<T 0.015	<T 0.010	0.095	0.085	0.010	0.001
00024602	0.33	0.290	0.035	0.030	0.120	0.110	0.026	0.001
00024624	0.21	0.930	0.135	0.055	0.080	0.840	<T 0.007	0.002
00024631	0.10	0.520	0.130	0.075	0.060	0.425	<T 0.006	< 0.001
00069015	0.17	0.500	0.090	0.025	0.040	0.445	<T 0.006	0.003
00069020	0.15	0.490	0.075	<T 0.020	0.020	0.400	<T 0.003	0.002
00069022	0.12	0.300	0.070	<T 0.005	0.020	0.185	<T 0.003	0.003
00094391	0.17	0.480	0.055	<T 0.015	0.020	0.410	<T 0.002	0.005
00094377	0.17	0.170	0.045	<T 0.005	0.030	0.150	<M 0.002	0.001
00094386	0.08	0.260	0.115	<T 0.005	0.095	0.230	<M 0.002	0.002
00094392	0.23						COPPER	ACIDITY GRAN
SAMPLE NUMBER	NICKEL MG/L	ZINC MG/L	IRON MG/L	LEAD MG/L	VANADIUM MG/L	ALUMINIUM MG/L	COPPER MG/L	ACIDITY GRAN UG/L
00024591	< 0.0002	0.013	0.025	1DT 0.005	0.0004	1DT 0.043	1DT 0.0015	96.70
00024597	< 0.0002	1DT 0.012	0.032	1DT 0.007	0.0007	1DT 0.041	1DT 0.0018	113.00
00024601	< 0.0002	1DT 0.037	0.012	< 0.002	< 0.0004	0.020	0.0011	42.40
00024602	0.0003	0.006	0.054	0.006	< 0.0004	0.043	0.0012	48.40
00024624	< 0.0002	1DT 0.003	0.017	1DT 0.001	< 0.0004	0.020	0.0005	113.00
00024631	< 0.0006	1DT 0.002	0.016	0.010	< 0.0004	0.021	0.0005	70.10
00069015	0.0004	0.008	0.017	0.012	< 0.0004	0.010	0.0006	99.20
00069020	0.0005	1DT 0.005	0.014	0.021	< 0.0004	0.031	1DT 0.0012	107.00
00069022	0.0005	1DT 0.005	0.023	0.002	< 0.0004	0.008	1DT 0.0006	58.90
00094391	< 0.0002	1DT 0.005	0.007	0.003	< 0.0004	< 0.007	1DT 0.0002	124.00
00094377	< 0.0002	1DT 0.002	0.015	0.009	< 0.0004	< 0.011	< 0.0004	38.60
00094386	< 0.0002	1DT 0.023						77.20
00094392	< 0.0002							

PART VII

SOUTHWESTERN REGION CUMULATIVE AMBIENT AIR CONCENTRATION RESULTS

ONTARIO MINISTRY OF THE ENVIRONMENT
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
DATA LISTING
CUMULATIVE SAMPLING ANALYSIS RESULTS

REGION-SW STATION-ALVINSTON MIC TYPE A SITE NO.1													
SAMPLE NUMBER	SUBMISSION NUMBER	LIS TYPE	PROJECT CODE	SAMPLE REMOVAL DATE	EXPOSURE DATE	END HR	START HR	PREC. TYPE	PREC. AT	PREC. EXP	GAUGE DEPTH (MM)	EFFICIENCY %	
00074298	AP02132	PR	02	JAN 27, 1987	DEC 30, 1986	1130	1630	2	1		39.9	82.36	
00074314	AP02167	PR	02	FEB 24, 1987	JAN 27, 1987	1200	1130	3			14.0	58.08	
00074324	AP02186	PR	02	MAR 24, 1987	FEB 24, 1987	1130	1200	3			23.2	68.90	
00074340	AP02226	PR	02	APR 21, 1987	MAR 24, 1987	1600	1130	1			70.1	76.89	
00074362	AP02226	PR	02	MAY 19, 1987	APR 21, 1987	1130	1600	1			17.0	113.42	
00074378	AP02255	PR	02	JUN 16, 1987	MAY 19, 1987	1200	1130	1			40.0	93.71	
00074393	AP02279	PR	02	JUL 14, 1987	JUN 16, 1987	1330	1200	1			30.0	10.06	
00074408	AP02321	PR	02	AUG 11, 1987	JUL 14, 1987	1200	1330	1			56.0	93.17	
00074417	AP02336	PR	02	SEP 8, 1987	AUG 11, 1987	1230	1200	1			40.0	98.25	
00074436	AP02357	PR	02	OCT 6, 1987	SEP 8, 1987	1200	1230	1			83.0	96.11	
00074445	AP02407	PR	02	NOV 3, 1987	OCT 6, 1987	1200	1200	1			63.0	68.69	
00063787	AP02412	PR	02	DEC 1, 1987	NOV 3, 1987	1300	1200	3			68.0	94.26	
00074465	AP02447	PR	02	CONDUCT	LAB-PH	ACIDITY, TFE	SULFATE				76.6	124.97	
ML													
SAMPLE NUMBER	FIELD	OFFICE	VOLUME	CONDUCT	LAB-PH	ACIDITY, TFE	SULFATE	NITRATE	CALCIUM				
00074298			1067	26.10	4.39	****	2.00	MG/L	MG/L				
00074314	H		264	39.50	UG	5.31	****	UG	0.63	0.40			
00074324			519	30.60		4.32	****		2.10	4.00			
00074340	AC		1750	30.58		4.30	****		0.64	0.36			
00074362	ABC		626	52.59		4.11	****		0.55	0.34			
00074378	AC		1217	50.15		3.93	****		1.30	1.42			
00074393	G		98	41.30		4.17	****		0.85	0.54			
00074408		X	1694	****		****	4.90	****	0.80	0.54			
00074417	A		1276	27.00	4.36	****	2.75		0.52	0.52			
00074436	ABC		2590	62.00	3.96	****	6.40		0.84	0.44			
00074445			1405	29.00	4.33	****	2.75		0.64	0.38			
00063787			2081	21.00	4.36	****	2.10		0.35	0.28			
00074465	N		3108	24.00	4.31	****	2.00		0.47	0.20			

ONTARIO MINISTRY OF THE ENVIRONMENT
AFIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
DATA LISTING
CUMULATIVE SAMPLING ANALYSIS RESULTS

REGION-SW STATION=ALVINSTON MIC TYPE A SITE NO.1								
SAMPLE NUMBER	CHLORIDE MG/L	KJELDAHL MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	PHOSPHOR MG/L	MANGANESE MG/L
00074298	0.38	0.250	0.055	0.030	0.125	0.230	0.026	0.008
00074314	0.79	0.950	0.360	0.080	0.365	0.750	0.022	0.072
00074324	0.30	0.210	0.065	0.025	0.110	0.150	<T	0.002
00074340	0.17	0.540	0.050	0.050	0.100	0.505	0.017	0.003
00074362	0.39	1.230	0.255	0.220	0.130	1.080	0.026	0.015
00074378	0.25	0.550	0.100	0.035	0.045	0.580	<W	0.002
00074393	0.55	!IS	0.125	0.265	B 0.285	0.610	!IS	0.007
00074408	0.13	0.380	0.095	0.040	0.030	0.350	<T	0.002
00074417	0.13	0.840	0.070	0.150	0.040	0.705	0.039	0.004
00074436	0.25	0.480	0.055	0.040	0.060	0.345	<T	0.002
00074445	0.18	0.290	0.035	<T 0.015	0.045	0.205	<W 0.002	< 0.001
00063787	0.24	0.290	0.035	<T 0.015	0.045	0.205	<W 0.002	< 0.001
00074465	0.21	0.250	0.030	LEAD	0.060	0.200	COPPER	ACIDITY GRAN
SAMPLE NUMBER	NICKEL MG/L	ZINC MG/L	IRON MG/L	LEAD MG/L	VANADIUM MG/L	ALUMINUM MG/L	COPPER MG/L	ACIDITY GRAN UG/L
00074298	0.0003	1DT 0.011	0.036	1DT 0.002	0.0005	0.053	0.0014	66.50
00074314	D 0.0097	1DT 0.016	UG	0.012	< 0.0004	0.204	1DT 0.0021	35.00
00074324	< 0.0002	0.008	0.066	< 0.003	0.0008	0.046	D 0.0029	84.40
00074340	< 0.0002	1DT 0.004	0.022	0.003	< 0.0004	0.030	0.0019	75.40
00074362	< 0.0018	1DT 0.011	0.107	0.006	< 0.0004	0.193	1DT 0.0012	105.00
00074378	< 0.0002	1DT 0.003	0.037	1DT 0.003	< 0.0004	0.054	1DT 0.0016	132.00
00074393	D 0.0029	1DT 0.039	D 0.231	1DT 0.010	D 0.0007	B 1.023	B 0.0099	98.60
00074408	0.0002	0.004	0.022	0.005	0.0007	0.028	0.0015	74.20
00074417	< 0.0002	1DT 0.005	0.025	1DT 0.005	< 0.0004	0.012	0.0009	149.00
00074436	< 0.0003	1DT 0.003	0.022	0.004	D 0.0007	1DT 0.016	1DT 0.0013	81.70
00063787	< 0.0002	< 0.001	0.012	0.012	< 0.0004	1DT 0.007	1DT 0.0009	70.00
00074465	< 0.0003	1DT 0.004	0.011	1DT 0.003	< 0.0004	0.008	0.0018	91.60

ONTARIO MINISTRY OF THE ENVIRONMENT
 APLOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 DATA LISTING
 CUMULATIVE SAMPLING ANALYSIS RESULTS

REGION-SW STATION=COLCHESTER MIC TYPE A SITE NO.1																
SAMPLE NUMBER	SUBMISSION NUMBER	LIS SAMPLE TYPE	PROJECT SUB CODE	PROJECT CODE	SAMPLE REMOVAL DATE	EXPOSURE		SAMPLE		PREC. TYPE AT	PREC. EXP	REC. AT	GAUGE DEPTH (MM)	EFFICIENCY %		
						DATE	HR	END HR	START HR							
00074295	AF02132	PR	02	01	JAN 27, 1987	DEC 30, 1986	0715	0826	2	1	1	2	44.0	61.18		
00074310	AF02167	PR	02	01	FEB 24, 1987	JAN 27, 1987	0800	0720	3	1	2	2	12.6	68.20		
00074320	AF02186	PR	02	01	MAR 24, 1987	FEB 24, 1987	0830	0800	3	1	2	2	36.1	64.1E		
00074336	AF02226	PR	02	01	APR 21, 1987	MAR 24, 1987	0710	0830	1			2	82.9	69.66		
00074358	AF02226	PR	02	01	MAY 19, 1987	APR 21, 1987	0730	0715	1		1	2	36.0	61.26		
00074374	AF02255	PR	02	01	JUN 16, 1987	MAY 19, 1987	1230	0730	1		3	3	55.0	82.04		
00074389	AF02279	PR	02	01	JUL 14, 1987	JUN 16, 1987	0900	1240	1		3	3	105.0	75.80		
00074404	AF02321	PR	02	01	AUG 11, 1987	JUL 14, 1987	0714	0914	1		3	3	70.0	61.03		
00074413	AF02336	PR	02	01	SEP 8, 1987	AUG 11, 1987	0800	0720	1		3	3	157.0	78.71		
00074432	AF02357	PR	02	01	OCT 6, 1987	SEP 8, 1987	0720	0800	1		3	3	94.0	83.65		
00074441	AF02407	PR	02	01	NOV 3, 1987	OCT 6, 1987	1130	0730	1		1	3	64.0	75.94		
00063783	AF02412	PR	02	01	DEC 1, 1987	NOV 3, 1987	0800	1130	3	1	2	2	52.2	122.20		
00074461	AF02447	PR	02	01	DEC 29, 1987	DEC 1, 1987	0740	0800	3	1	2	2	89.7	76.61		
					CONDUCT		LAB.PH		ACIDITY.TFE		SULFATE		NITRATE		CALCIUM	
					UMHIO/CM				MG/L		MG/L		MG/L		MG/L	
00074295	C		874		35.50	4.20	****	2.45		0.61			0.14			
00074310	C		279		48.00	4.01	****	2.95		1.14			0.42			
00074320	C		752		34.80	4.23	****	3.80		0.84			0.16			
00074336	HM		1875		29.44	4.28	****	3.20		0.51			0.64			
00074358	AF		716		37.49	4.63	****	7.20		1.19			1.94			
00074374	A		1465		38.70	4.21	****	4.55		0.60			0.38			
00074389	AC		2584		38.00	4.17	****	5.15		0.65			0.34			
00074404	F		1387		59.00	4.00	****	6.55		0.75			0.60			
00074413			4012		25.00	4.70	****	4.40		0.47			1.12			
00074432			2553		73.00	3.90	****	8.10		0.90			0.38			
00074441			1578	D	40.00	4.13	****	4.10		0.75			0.50			
00063783	N		2071		22.00	4.34	****	2.10		0.42			0.20			
00074461	CG		2231		13.50	5.11	****	2.85		0.15		LG	0.56			

ONTARIO MINISTRY OF THE ENVIRONMENT
AFIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
DATA LISTING

CUMULATIVE SAMPLING ANALYSIS RESULTS

REGION-SW STATION-COLCHESTER MIC TYPE A SITE NO.1

SAMPLE NUMBER	CHLORIDE MG/L	KJELDAHL MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	PHOSPHOR MG/L	MANGANESE MG/L	
00074295	0.38	0.350	0.030	<T	0.015	0.055	0.300	<T	0.007
00074310	0.79	0.540	0.085	0.030	0.030	0.230	0.425	<T	0.004
00074320	0.27	0.330	0.045	<T	0.025	0.060	0.270	<T	0.007
00074336	0.11	0.430	0.080	0.025	0.025	0.050	0.435	<T	0.003
00074358	0.39	1.130	0.490	0.140	0.120	0.970	0.019	<W	0.019
00074374	0.30	0.660	0.095	0.065	0.080	0.080	0.710	<W	0.002
00074389	0.20	D	1.020	0.160	0.083	0.850	D	0.083	0.003
00074404	0.23	0.980	0.100	0.055	0.035	0.795	<T	0.015	0.004
00074413	0.14	0.440	0.170	0.060	0.040	0.430	0.005	0.051	0.004
00074432	0.25	D	1.480	0.075	<T	0.950	<W	0.002	0.003
00074441	0.27	0.480	0.090	0.050	0.105	0.425	<W	0.002	0.001
00063783	0.19	0.280	0.035	<T	0.020	0.060	0.245	<W	0.002
00074461	0.45	RRV	7.000	UG	0.250	0.355	0.160	0.005	ACIDITY GRAN
SAMPLE NUMBER	NICKEL MG/L	ZINC MG/L	IRON MG/L	LEAD MG/L	VANADIUM MG/L	ALUMINUM MG/L	COPPER MG/L	ACIDITY GRAN UG/L	
00074295	<	1DT	0.012	1DT	<	0.0004	0.042	0.0013	92.30
00074310	<	1DT	0.022	1DT	<	0.0004	0.177	1DT	0.0012
00074320	<	1DT	0.012	1DT	<	0.0004	0.037	1DT	0.0010
00074336	<	1DT	0.016	1DT	<	0.0004	0.034	0.0009	94.20
00074358	<	1DT	0.032	1DT	<	0.0004	0.176	D	0.0027
00074374	<	1DT	0.005	1DT	<	0.0004	0.038	0.0010	51.70
00074389	<	1DT	0.009	1DT	<	0.0004	0.012	1DT	0.0013
00074404	<	1DT	0.011	1DT	<	0.0005	0.062	L	100.00
00074413	<	0.0002	0.032	0.021	<	0.0004	0.031	0.0006	D
00074432	<	0.0002	0.006	0.009	<	0.0004	0.023	0.0007	43.80
00074441	<	0.0013	0.008	0.030	<	0.0010	0.046	D	167.00
00074461	<	1DT	0.004	0.028	<	D	0.0008	0.0008	105.00
00063783	<	1DT	0.002	1DT	<	0.0004	1DT	0.0002	73.00
00074461	0.0024	1DT	0.014	1DT	<	0.0004	0.022	B	43.90

ONTARIO MINISTRY OF THE ENVIRONMENT
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 DATA LISTING
 CUMULATIVE SAMPLING ANALYSIS RESULTS

REGION-SW STATION-WERLIN MIC TYPE A SITE NO.1													
SAMPLE SUBMISSION LLS	PROJECT SUB	SAMPLE	EXPOSURE	SAMPLE	PREC.	PREC.	GAUGE	EFFICIENCY					
NUMBER	NUMBER	PROJECT	DATE	END	START	TYPE	AT	DEPTH (MM) %					
SAMPLE TYPE	CODE	CODE	REMOVAL DATE	HR	HR	AT EXP	AT REM.						
00074294	AF02132	PR 02	JAN 27, 1987	DEC 30, 1986	0700	1430	2	2	48.2	32.33			
00074311	AF02167	PR 02	FEB 24, 1987	JAN 27, 1987	0700	0700	3	2	24.3	30.93			
00074321	AF02186	PR 02	MAR 24, 1987	FEB 24, 1987	0700	0700	3	2	21.4	78.44			
00074337	AF02226	PR 02	APR 21, 1987	MAR 24, 1987	0700	0700	1	2	53.3	72.52			
00074359	AF02226	PR 02	MAY 19, 1987	APR 21, 1987	0700	0700	1	2	44.0	86.31			
00074375	AF02255	PR 02	JUN 16, 1987	MAY 19, 1987	0700	0700	1	3	20.0	76.54			
00074390	AF02279	PR 02	JUL 14, 1987	JUN 16, 1987	0700	0700	1	3	107.0	81.78			
00074405	AF02321	PR 02	AUG 11, 1987	JUL 14, 1987	0700	0700	1	3	103.0	84.18			
00074414	AF02336	PR 02	SEP 8, 1987	AUG 11, 1987	1400	1400	1	3	93.0	79.12			
00074433	AF02357	PR 02	OCT 7, 1987	SEP 8, 1987	0700	1400	1	3	107.0	76.71			
00074442	AF02407	PR 02	NOV 3, 1987	OCT 7, 1987	0700	1400	1	1	50.0	107.12			
00063784	AF02412	PR 02	DEC 1, 1987	NOV 3, 1987	0700	0700	1	2	31.0	171.59			
00074462	AF02447	PR 02	DEC 29, 1987	DEC 31, 1987	0900	0700	3	1	93.6	72.49			
SAMPLE NUMBER	FIELD	OFFICE	VOLUME	CONDUCT	LAB. PH	ACIDITY, TFE	SULFATE	NITRATE	CALCIUM				
			ML	UMHO/CN			MG/L	MG/L	MG/L				
00074294	N		506	36.00	4.21	****	2.65	0.67	0.22				
00074311	N		244	54.50	4.14	****	4.45	UG	1.95	1.84			
00074321			545	43.80	4.09	****	2.25		1.03	0.28			
00074337			1255	33.98	4.27	****	3.65		0.62	0.50			
00074359	A		1233	49.24	4.11	****	7.30		0.93	0.96			
00074375	A		497	26.40	4.55	****	4.45		0.70	0.60			
00074390			2841	38.00	4.14	****	4.35		0.60	0.30			
00074405			2815	41.50	4.19	****	4.55		0.50	0.44			
00074414	ABC		2389	21.50	UG	****	4.00		0.51	0.32			
00074433			2665	50.00	4.07	****	5.00		0.78	0.36			
00074442	A		1739	30.00	4.27	****	3.00		0.56	0.34			
00063784				25.00	4.26	****	2.25		0.45	0.18			
00074462	G		2203	14.00	B	****	3.35		0.29	D			

ONTARIO MINISTRY OF THE ENVIRONMENT
 APLOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 DATA LISTING
 CUMULATIVE SAMPLING ANALYSIS RESULTS

REGION-SW STATION-MERLIN MIC TYPE A SITE NO.1

SAMPLE NUMBER	CHLORIDE MG/L	KJELDHAL MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	PHOSPHOR MG/L	MANGANESE MG/L
00074294	0.33	0.390	0.035	<T	0.020	0.075	<T	0.002
00074311	0.99	0.870	0.300	0.050	0.375	0.610	0.012	0.013
00074321	0.36	0.230	0.050	<T	0.025	0.075	<T	0.004
00074337	0.13	0.510	0.070	0.030	0.065	0.475	<T	0.003
00074359	0.21	0.960	0.220	0.060	0.060	0.920	0.012	0.010
00074375	0.30	1.720	0.120	D	0.175	1.100	D	0.085
00074390	0.20	0.510	0.070	<T	0.085	0.530	<T	0.003
00074405	0.25	0.560	0.065	<T	0.020	0.500	<T	0.007
00074414	0.15	1.490	0.100	0.230	0.045	1.450	0.161	0.004
00074433	0.19	0.730	0.060	0.070	0.030	0.645	<W	0.002
00074442	0.12	0.380	0.050	<T	0.020	0.340	<W	0.002
00063784	0.22	0.270	<T	0.045	0.060	0.245	<W	<
00074462	0.55	RRV	D	UG	0.295	0.280	0.014	0.007
SAMPLE NUMBER	NICKEL MG/L	ZINC MG/L	IRON MG/L	LEAD MG/L	VANADIUM MG/L	ALUMINIUM MG/L	COPPER MG/L	ACIDITY GRAN UG/L
00074294	0.0002	1DT 0.012	0.038	1DT 0.005	<	0.074	0.0021	93.10
00074311	0.0009	1DT 0.023	UG	0.011	<	UG	1DT 0.0017	114.00
00074321	0.0004	1DT 0.011	0.039	1DT 0.003	<	0.064	1DT 0.0013	120.00
00074337	<	1DT 0.004	0.032	0.003	<	0.042	<	78.60
00074359	0.0031	1DT 0.007	0.082	0.004	<	0.093	<	108.00
00074375	<	1DT 0.012	0.044	0.004	<	0.074	D	52.60
00074390	0.0002	1DT 0.006	0.016	1DT 0.002	<	1DT 0.020	0.0010	97.30
00074405	<	1DT 0.005	0.022	0.005	<	0.039	1DT 0.0007	93.70
00074414	0.0005	0.011	0.024	0.007	<	0.016	0.0009	115.00
00074433	<	0.005	0.022	0.005	<	0.021	1DT 0.0010	81.40
00074442	0.0003	1DT 0.006	0.019	0.039	<	1DT 0.005	1DT 0.0003	84.20
00063784	<	<	0.010	0.016	<	1DT 0.005	1DT 0.0003	1G
00074462	0.0016	0.021	0.025	1DT 0.002	<	0.017	0.0030	20.30

ONTARIO MINISTRY OF THE ENVIRONMENT
 APLOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 DATA LISTING
 CUMULATIVE SAMPLING ANALYSIS RESULTS

REGION-SW STATION-PALMERSTON MIC TYPE A SITE NO.1														
SAMPLE NUMBER	SUBMISSION NUMBER	LIS TYPE	PROJECT SUB CODE	PROJECT CODE	SAMPLE REMOVAL DATE	EXPOSURE DATE	SAMPLE END HR	PREC. START TYPE AT	PREC. END HR	PREC. TYPE AT	PREC. EXP	GAUGE DEPTH (MM)	GAUGE TYPE	EFFICIENCY %
00074299	AP02132	PR	02	01	JAN 27, 1987	DEC 30, 1986	1300	0900	2			33.1	2	0.56
00074316	AP02167	PR	02	01	FEB 24, 1987	JAN 27, 1987	1315	1300	3			20.2	2	34.46
00074326	AP02186	PR	02	01	MAR 25, 1987	FEB 24, 1987	1600	1315	3			17.0	2	83.34
00074342	AP02226	PR	02	01	MAR 25, 1987	MAR 25, 1987	1030	1600	3			38.9	2	79.57
00074364	AP02226	PR	02	01	MAY 19, 1987	APR 21, 1987	1300	1030	1			35.0	2	77.97
00074380	AP02255	PR	02	01	JUN 16, 1987	MAY 19, 1987	1300	1300	1			45.0	3	60.03
00074397	AP02295	PR	02	01	JUL 14, 1987	JUN 16, 1987	1300	1300	1			140.0	3	54.25
00074409	AP02321	PR	02	01	AUG 11, 1987	JUL 14, 1987	1000	1300	1			70.0	3	86.11
00074418	AP02336	PR	02	01	SEP 9, 1987	AUG 11, 1987	1600	1300	1			22.0	3	69.44
00074437	AP02357	PR	02	01	OCT 6, 1987	SEP 9, 1987	1300	1600	1	1		68.0	3	77.77
00074446	AP02407	PR	02	01	NOV 3, 1987	OCT 6, 1987	1300	1300	1			80.0	1	98.21
00063788	AP02412	PR	02	01	DEC 1, 1987	NOV 3, 1987	1130	1300	3			85.0	2	83.56
00074466	AP02447	PR	02	01	DEC 29, 1987	DEC 1, 1987	1300	1300	3			64.5	2	66.71
CONDUCT LAB-PH ACIDITY-TPE SULFATE NITRATE														
UMHO/CM MG/L MG/L														
00074299	FLK	X	6		****	****	****	****	****	****	****	****	****	****
00074316		NH	226		36.50	5.10	****	****	****	4.70	1.75	1.32	1.62	1.32
00074326		HM	460		36.80	UG	5.72	****	****	5.10	1.16	0.34	0.34	0.34
00074342			1005		28.31	4.41	****	****	****	3.20	0.61	1.64	1.64	1.64
00074364			886		62.67	4.07	****	****	****	9.70	1.65	1.12	1.12	1.12
00074380			877		38.00	4.48	****	****	****	7.15	1.10	0.20	0.20	0.20
00074397			2466		36.00	4.08	****	****	****	4.25	0.49	0.30	0.30	0.30
00074409			1957		33.00	4.27	****	****	****	3.60	0.37	0.58	0.58	0.58
00074418		H	496		25.50	4.86	****	****	****	4.25	0.58	0.72	0.72	0.72
00074437			1717		63.00	3.96	****	****	****	6.65	0.91	0.42	0.42	0.42
00074446			2551		25.00	4.41	****	****	****	2.80	0.55	0.22	0.22	0.22
00063788			2306		15.00	4.55	****	****	****	1.65	0.32	0.16	0.16	0.16
00074466			1397		21.00	4.45	****	****	****	2.20	0.49	0.26	0.26	0.26

ONTARIO MINISTRY OF THE ENVIRONMENT
 APLOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 DATA LISTING
 CUMULATIVE SAMPLING ANALYSIS RESULTS

REGION-SW STATION-PALMERSTON MIC TYPE A SITE NO. 1

SAMPLE NUMBER	CHLORIDE MG/L	KJELDAHL MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	PHOSPHOR MG/L	MANGANESE MG/L
00074299	0.91	2.800	0.275	D	0.185	0.430	0.034	0.011
00074316	1.10	1.1R	0.405	UG	0.210	0.515	1.800	0.004
00074326	0.18	0.700	0.075	0.025	0.120	0.675	0.009	0.004
00074342	0.34	1.670	0.315	0.090	0.085	1.670	0.015	0.020
00074364	0.20	1.800	0.270	0.045	0.050	D	0.019	0.010
00074380	0.10	0.450	0.035	0.045	0.025	0.425	0.004	0.001
00074397	0.11	0.430	0.055	0.010	0.015	0.380	0.005	0.002
00074409	0.17	1.100	0.160	0.030	0.045	1.000	0.012	0.004
00074418	0.18	0.910	0.060	0.030	0.020	0.815	0.007	0.003
00074437	0.08	0.540	0.035	0.015	0.030	0.505	0.002	0.001
00074446	0.08	0.310	0.015	0.025	0.040	0.270	0.003	0.001
00063788	0.12	0.340	0.070	0.010	0.055	0.290	0.002	0.003
00074466	0.16							
00074466	NICKEL	ZINC	LEAD					
00074299	0.0022	1DT	1DT	0.006	D	0.0006	1DT	0.0056
00074316	0.0022	1DT	0.026	0.058		B	0.532	0.0056
00074326	0.0004	1DT	0.008	0.025		L	0.028	0.0045
00074342	0.0004	1DT	0.010	0.143			0.155	0.0010
00074364	0.0004	1DT	0.008	0.039			0.065	0.0007
00074380	0.0003	1DT	0.002	0.010		1DT	0.007	0.0002
00074397	0.0003	1DT	0.002	0.011		0.028	0.003	0.0003
00074409	0.0002	1DT	0.003	0.039		0.040	0.0017	0.0005
00074418	0.0002	1DT	0.005	0.012		0.017	1DT	0.0004
00074437	0.0002	1DT	0.005	0.012		0.010	1DT	0.0004
00074446	0.0002	1DT	0.002	0.007		1DT	0.0002	0.0002
00063788	0.0002	1DT	0.013	0.015		1DT	0.0005	0.0005
00074466	0.0002	1DT	0.013	0.015		1DT	0.0005	0.0005
00074299	0.0002	1DT	0.008	0.025		0.0004	0.028	0.0045
00074316	0.0004	1DT	0.010	0.143		0.155	0.0010	0.0007
00074326	0.0003	1DT	0.002	0.039		0.065	0.0003	0.0003
00074342	0.0003	1DT	0.002	0.010		0.040	0.0017	0.0005
00074364	0.0003	1DT	0.002	0.011		0.017	1DT	0.0004
00074380	0.0002	1DT	0.003	0.039		0.010	1DT	0.0004
00074397	0.0002	1DT	0.005	0.012		0.007	1DT	0.0002
00074409	0.0002	1DT	0.002	0.007		0.005	1DT	0.0002
00074418	0.0002	1DT	0.013	0.015		0.005	1DT	0.0002
00074437	0.0002	1DT	0.013	0.015		0.005	1DT	0.0002
00074446	0.0002	1DT	0.013	0.015		0.005	1DT	0.0002
00063788	0.0002	1DT	0.013	0.015		0.005	1DT	0.0002
00074466	0.0002	1DT	0.013	0.015		0.005	1DT	0.0002

ONTARIO MINISTRY OF THE ENVIRONMENT
AFIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

DATA LISTING

CUMULATIVE SAMPLING ANALYSIS RESULTS

REGION-SW STATION-PORT STANLEY MIC TYPE A SITE NO.1

SAMPLE NUMBER	SAMPLE SUBMISSION NUMBER	LIS SAMPLE TYPE	PROJECT SUB CODE	SAMPLE PROJECT CODE	SAMPLE REMOVAL DATE	EXPOSURE DATE	SAMPLE END HR	PREC. START HR	PREC. TYPE	PREC. AT EXP	GAUGE DEPTH (MM)	EFFICIENCY %
00074296	AF02132	PR	02	01	JAN 26, 1987	DEC 30, 1986	0900	0900	3	2	46.1	57.86
00074312	AF02167	PR	02	01	FEB 24, 1987	JAN 26, 1987	0930	0900	3	2	10.8	60.17
00074322	AF02186	PR	02	01	MAR 24, 1987	FEB 24, 1987	0930	0930	3	2	27.7	71.27
00074338	AF02226	PR	02	01	APR 21, 1987	MAR 24, 1987	0900	0900	3	2	95.0	58.68
00074360	AF02226	PR	02	01	MAY 19, 1987	APR 21, 1987	0900	0900	1	2	33.0	91.37
00074376	AF02255	PR	02	01	JUN 16, 1987	MAY 19, 1987	0930	0930	1	3	13.0	72.50
00074393	AF02279	PR	02	01	JUL 14, 1987	JUN 16, 1987	1450	0930	1	3	77.0	86.64
00074406	AF02321	PR	02	01	AUG 11, 1987	JUL 14, 1987	0845	1450	1	3	113.0	94.01
00074415	AF02336	PR	02	01	SEP 8, 1987	AUG 11, 1987	0900	0845	1	3	40.0	102.95
00074433	AF02357	PR	02	01	OCT 6, 1987	SEP 8, 1987	1130	0900	1	3	77.0	84.68
00074443	AF02407	PR	02	01	NOV 3, 1987	OCT 6, 1987	1100	1130	1	1	48.0	101.83
00063785	AF02412	PR	02	01	DEC 1, 1987	NOV 3, 1987	0845	1100	3	1	70.0	99.88
00074463	AF02447	PR	02	01	DEC 29, 1987	DEC 1, 1987	0930	0845	3	1	102.6	66.10
SAMPLE NUMBER	FIELD COMMENTS	OFFICE COMMENTS	VOLUME ML	CONDUCT UMHG/CM	LAB.PH	ACIDITY, IFE	SULFATE MG/L	NITRATE MG/L	CALCIUM MG/L			
00074296			866	44.10	4.13	****	UG	3.45	0.89	0.40		
00074312			211	60.00	7.01	****	UG	8.60	2.65	6.02		
00074322			641	22.80	4.75	****		2.70	0.68	1.08		
00074338			1810	48.13	4.13	****		6.20	0.93	0.98		
00074360		H	979	34.13	4.95	****	UG	8.00	1.06	2.40		
00074376	AC		306	89.80	3.85	****	UG	13.90	2.00	2.52		
00074393			2166	57.00	3.93	****		6.10	0.85	0.46		
00074406	F		3449	36.00	4.24	****		4.10	0.39	0.28		
00074415			1337	30.50	4.36	****		3.35	0.53	0.68		
00074434			2117	26.00	UG	****	UG	5.95	0.79	2.30		
00074443		H	1587	27.00	UG	****		5.25	0.85	3.46		
00063785		H	2270	18.00	4.73	****		3.25	0.52	1.18		
00074463			2202	25.00	4.29	****		2.25	0.49	0.34		

ONTARIO MINISTRY OF THE ENVIRONMENT
APROS - ACIDIC PRECIPITATION IN ONTARIO STUDY
DATA LISTING
CUMULATIVE SAMPLING ANALYSIS RESULTS

REGION-SW STATION-FORT STANLEY MIC TYPE A SITE NO.1													
SAMPLE NUMBER	CHLORIDE MG/L	KUELDAHL MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	PHOSPHOR MG/L	MANGANESE MG/L					
00074296	0.38	0.570	0.040		0.035	0.065	0.510	<T	0.002				0.003
00074312	1.10	1.070	1.080		0.055	0.500	0.850	<T	0.002				0.033
00074322	0.28	0.230	0.180	<T	0.020	0.105	0.185	<T	0.002				0.003
00074338	0.31	0.770	0.130		0.065	0.120	0.710		0.017				0.006
00074360	0.21	1.080	0.345		0.085	0.060	0.900		0.064				0.019
00074376	UG	0.50	1.590		0.215	0.165	1.650	D	0.070				0.013
00074391	0.25	0.610	0.050		0.050	0.070	0.620	<T	0.003				0.003
00074406	0.10	0.540	0.040	<T	0.020	0.030	0.530	<T	0.004				0.002
00074415	0.14	0.340	0.055		0.030	0.035	0.270	<T	0.005				0.003
00074434	0.17	0.630	0.440		0.035	0.030	0.555	<T	0.009				0.011
00074443	0.18	0.760	0.530		0.065	0.080	0.625		0.025				0.008
00063785	0.23	0.280	0.215		0.035	0.075	0.245	<W	0.016				0.004
00074463	0.18	0.320	0.050	LEAD	0.015	0.065	0.230		0.002				0.002
SAMPLE NUMBER	NICKEL MG/L	ZINC MG/L	IRON MG/L	LEAD MG/L	VANADIUM MG/L	ALUMINIUM MG/L	COPPER MG/L	ACIDITY GRAN UG/L					
00074296	0.0005	1DT 0.021	0.038		0.0004	0.057	0.0016	108.00					
00074312	0.0052	1DT 0.015	UG		0.0006	UG	1DT 0.0013	17.30					
00074322	0.0005	1DT 0.007	0.078		<	0.0004	1DT 0.0010	43.40					
00074338	0.0004	1DT 0.008	0.062		0.0004	0.064	1DT 0.0027	104.00					
00074360	<	1DT 0.024	0.124		<	0.0004	1DT 0.0005	UG					
00074376	0.0009	1DT 0.012	0.131	1DT 0.003	<	0.0007	1DT 0.0032	UG					
00074391	0.0004	1DT 0.009	0.024	1DT 0.003	<	0.0004	1DT 0.0009	197.00					
00074406	<	1DT 0.003	0.014	0.005	<	0.0004	1DT 0.0002	143.00					
00074415	0.0005	0.003	0.026	0.002	<	0.0004	1DT 0.0011	86.60					
00074434	<	0.002	0.028	0.018	<	0.0004	1DT 0.0003	73.90					
00074443	0.0014	0.004	0.050	0.023	0.0005	1DT 0.023	1DT 0.0009	18.40					
00063785	<	<	0.030	0.012	<	0.0004	1DT 0.0004	15.70					
00074463	<	1DT 0.004	0.019	1DT 0.002	<	0.0004	1DT 0.0004	42.30					
								85.40					

ONTARIO MINISTRY OF THE ENVIRONMENT
 APFOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 DATA LISTING
 CUMULATIVE SAMPLING ANALYSIS RESULTS

REGION-SW STATION-SHALLOW LAKE MIC TYPE A SITE NO.1														
SAMPLE NUMBER	SUBMISSION NUMBER	LIS TYPE	PROJECT CODE	SUB PROJECT CODE	SAMPLE REMOVAL DATE	EXPOSURE DATE	END HR	START HR	PREC. TYPE	PREC. EXP	GAUGE AT RECV.	GAUGE DEPTH (MM)	EFFICIENCY %	
000074300	AP02132	PR	02	01	JAN 28, 1987	DEC 31, 1986	0800	1630	2	1	2	46.4	62.20	
000074315	AP02167	PR	02	01	FEB 24, 1987	JAN 28, 1987	0800	0800	3	1	2	35.9	51.05	
000074325	AP02186	PR	02	01	MAR 25, 1987	FEB 24, 1987	0800	0800	3		2	24.0	77.26	
000074341	AP02226	PR	02	01	APR 21, 1987	MAR 25, 1987	1220	0800	3		2	117.4	36.99	
000074363	AP02226	PR	02	01	MAY 19, 1987	APR 21, 1987	0730	1230	1		2	30.0	96.30	
000074379	AP02255	PR	02	01	JUN 16, 1987	MAY 19, 1987	0830	0730	1		3	58.0	95.75	
000040694	AP02255	PR	02	01	JUL 14, 1987	JUN 16, 1987	1030	0830	1		2	123.0	89.57	
000406872	AP02279	PR	02	01	AUG 11, 1987	JUL 14, 1987	0935	1030	1		3	56.5	83.35	
000405943	AP02309	PR	02	01	SEP 8, 1987	SEP 8, 1987	1300	0935	1		3	51.5	81.75	
000409559	AP02330	PR	02	01	OCT 6, 1987	SEP 8, 1987	1030	0935	1		3	175.0	72.46	
000640003	AP02374	PR	02	01	NOV 3, 1987	OCT 6, 1987	0830	1300	1		9	98.1	91.40	
000409577	AP02397	PR	02	01	DEC 1, 1987	NOV 3, 1987	0800	0830	3	1	2	10.5	395.41	
000640018	AP02430	PR	02	01	DEC 29, 1987	DEC 2, 1987	1100	0700	3		9	78.8	81.30	
CONDUCT														
LAB-PH ACIDITY-IFE SULFATE														
MG/L														
UMHO/CM														
000074300	937				23.40	4.42	****			1.30	0.66		0.14	
000074315	595	HM			27.00	4.30	****			1.90	0.87		0.48	
000074325	602				25.10	4.32	****			1.65	0.45	<T	0.06	
000074341	1410	N			47.57	4.08	****		D	4.80	0.97		0.30	
000074363	938				45.88	4.19	****			6.75	1.11		1.02	
000074379	1803				43.90	4.01	****			5.30	0.75		0.38	
00040694	3577	HM			27.65	4.21	****			2.65	0.40		0.28	
000406872	1529	F			20.20	4.49	****			2.30	0.40		0.24	
000405943	1367	ACDFJ			76.50	3.85	****			9.65	1.20		1.04	
00040959	4117				36.50	4.24	****			4.00	0.56		0.40	
000840003	2911	HM			23.00	4.39	****			3.15	0.66		0.26	
000405777	1348	GFA			17.00	4.62	****			1.60	0.42		0.12	
000840018	2080	G			16.50	4.49	****			1.10	0.31	<T	0.06	

REGION-SW STATION=SHALLOW LAKE MIC TYPE A SITE NO.1

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ONTARIO MINISTRY OF THE ENVIRONMENT
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 DATA LISTING
 CUMULATIVE SAMPLING ANALYSIS RESULTS

REGION-SW STATION-WATERLOO MIC TYPE A SITE NO.1									
SAMPLE NUMBER	SUBMISSION LIS SAMPLE TYPE	PROJECT SUB PROJECT CODE	SAMPLE REMOVAL DATE	EXPOSURE SAMPLE DATE	SAMPLE START HR	PREC. TYPE AT EXP	PREC. TYPE AT REM.	GAUGE DEPTH (MM)	EFFICIENCY %
00074303	AP02132	PR 02	01 JAN 27, 1987	DEC 30, 1986	0900	1400	3	52.1	63.79
00074319	AP02167	PR 02	01 FEB 24, 1987	JAN 27, 1987	0900	0900	3	18.8	67.01
00074329	AP02186	PR 02	01 MAR 24, 1987	FEB 24, 1987	1000	0900	3	26.4	71.75
00074345	AP02226	PR 02	01 APR 21, 1987	MAR 24, 1987	0930	1000	3	91.3	66.12
00074367	AP02226	PR 02	01 MAY 19, 1987	APR 21, 1987	1800	0930	1	39.0	69.66
00074383	AP02255	PR 02	01 JUN 16, 1987	MAY 19, 1987	0840	1800	1	25.0	121.48
00074396	AP02279	PR 02	01 JUL 14, 1987	JUN 16, 1987	1430	0840	1	3	77.45
00074412	AP02321	PR 02	01 AUG 11, 1987	JUL 14, 1987	0840	1430	1	3	84.67
00074421	AP02336	PR 02	01 SEP 8, 1987	AUG 11, 1987	1325	0840	1	3	80.08
00074440	AP02357	PR 02	01 OCT 6, 1987	SEP 8, 1987	0845	1330	1	3	62.83
00074449	AP02407	PR 02	01 NOV 3, 1987	OCT 6, 1987	0930	0845	1	1	169.40
00063791	AP02412	PR 02	01 DEC 1, 1987	NOV 3, 1987	0915	0930	3	2	87.82
00074469	AP02447	PR 02	01 DEC 29, 1987	DEC 1, 1987	0830	0915	3	2	74.95
SAMPLE NUMBER	FIELD OFFICE COMMENTS	VOLUME ML	CONDUCT	LAB.PH	ACIDITY.TFE	SULFATE MG/L	NITRATE MG/L	CALCIUM MG/L	
00074303		1079	23.20	4.47	****	1.45	0.59	0.30	
00074319		409	31.50	4.25	****	2.50	0.79	0.34	
00074329		615	24.00	4.40	****	1.95	0.43	0.14	
00074345	A	1960	29.09	4.30	****	3.05	0.54	0.32	
00074367	AC	882	44.73	4.43	****	8.85	1.34	2.48	
00074383	A	986	53.40	4.03	****	6.75	1.20	1.12	
00074396		4677	11A	****	11A	****	11A	****	
00074412		4893	44.00	4.19	****	5.25	0.58	0.66	
00074421		728	25.00	4.63	****	3.60	0.59	0.74	
00074440		2509	55.00	4.02	****	5.95	0.66	0.38	
00074449	N	2200	25.00	4.49	****	3.15	0.60	0.50	
00063791		1919	14.00	4.48	****	1.45	1G	0.14	
00074469	H	2290	12.00	6.40	****	2.40	0.36	0.76	

ONTARIO MINISTRY OF THE ENVIRONMENT
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 DATA LISTING
 CUMULATIVE SAMPLING ANALYSIS RESULTS

REGION-SW STATION-WATERLOO MIC TYPE A SITE NO.1											
SAMPLE NUMBER	CHLORIDE MG/L	KJELDAHL MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	PHOSPHOR MG/L	MANGANESE MG/L			
00074303	0.30	0.320	0.055	<T	0.015	0.085	0.270	<T	0.005	0.002	
00074319	0.33	0.590	0.055	0.025	0.135	0.430	<T	0.006	0.003		
00074329	0.29	0.300	0.040	<T	0.005	0.050	0.200	<T	0.007	0.001	
00074345	0.14	0.490	0.060	<T	0.020	0.080	0.430	<T	0.007	0.002	
00074367	0.30	1.460	0.435	0.100	0.100	1.460	0.014	0.020	0.014	0.020	
00074383	0.25	1.140	0.200	0.055	0.055	1.150	<T	0.008	0.011	0.011	
00074396	ILA	ILS	ILA	ILA	ILA	ILA	ILS	ILA	ILS	ILA	ILS
00074412	0.15	0.670	0.100	<T	0.015	0.030	0.630	<T	0.008	0.004	
00074421	0.19	0.720	0.145	0.040	0.050	0.650	<T	0.009	0.005	0.005	
00074440	0.14	0.720	0.065	0.030	<T	0.015	0.655	<T	0.004	0.003	
00074449	0.11	0.600	0.075	0.050	0.090	0.545	0.012	0.003	0.012	0.003	
00063791	0.08	0.160	<T	<W	0.025	0.135	<W	0.002	<	0.001	
00074469	0.52	RV	0.165	0.185	0.295	0.280	0.003	0.006	0.003	0.006	
SAMPLE NUMBER	NICKEL MG/L	ZINC MG/L	IRON MG/L	LEAD MG/L	VANADIUM MG/L	ALUMINUM MG/L	COPPER MG/L	ACIDITY GRAN UG/L			
00074303	0.0002	1DT	0.027	1DT	0.003	0.036	0.0012	62.10	0.0012	62.10	
00074319	<	0.0002	0.059	1DT	0.005	<	0.0004	83.60	1DT	0.0014	
00074329	<	0.0004	0.143	<	0.003	0.0004	0.031	69.60	0.0026	69.60	
00074345	<	0.0002	0.026	0.003	<	0.0004	0.063	77.50	0.0009	77.50	
00074367	0.0004	1DT	0.146	0.003	<	0.0004	0.195	70.30	0.0005	70.30	
00074383	0.0002	1DT	0.061	0.002	<	0.0004	0.097	113.00	0.0015	113.00	
00074396	ILA	ILS	ILA	ILA	ILA	ILA	ILA	113.00	ILA	113.00	
00074412	<	0.0002	0.025	0.0004	<	0.0004	0.042	98.10	1DT	0.0008	
00074421	0.0006	0.010	0.052	0.010	<	0.0004	0.062	49.10	0.0013	49.10	
00074440	<	0.0002	0.018	0.010	<	0.0004	0.022	129.00	0.0009	129.00	
00074449	0.0009	1DT	0.026	0.007	<	0.0004	0.011	62.00	0.0006	62.00	
00063791	<	0.0002	0.009	1DT	<	0.0004	<	55.00	<	0.0003	
00074469	0.0013	1DT	0.028	0.009	<	0.0004	0.018	21.90	0.0065	21.90	

REGION-SW STATION-WILKESPORT MIC TYPE A SITE NO.1														
SAMPLE NUMBER	SUBMISSION NUMBER	LIS SAMPLE TYPE	PROJECT CODE	SUB PROJECT CODE	SAMPLE REMOVAL DATE	EXPOSURE DATE	HR	SAMPLE START DATE	HR	PREC. AT EXP	PREC. AT REM.	GAUGE DEPTH (MM)	EFFICIENCY %	
000074297	AF02132	PR	02	01	JAN 27, 1987	DEC 30, 1986	1340	1700	2			36.1	57.59	
000074313	AF02167	PR	02	01	FEB 24, 1987	JAN 27, 1987	1045	1340	3			5.4	66.16	
000074323	AF02166	PR	02	01	MAR 24, 1987	FEB 24, 1987	1000	1045	3			25.0	64.06	
000074339	AF02226	PR	02	01	APR 21, 1987	MAR 24, 1987	1530	1000	3			85.2	45.73	
000074361	AF02226	PR	02	01	MAY 19, 1987	APR 21, 1987	1000	1545	1			22.0	94.36	
000074377	AF02255	PR	02	01	JUN 16, 1987	MAY 19, 1987	1400	1000	1			28.0	85.14	
000074392	AF02279	PR	02	01	JUL 14, 1987	JUN 16, 1987	1500	1400	1			98.0	81.93	
000074407	AF02321	PR	02	01	AUG 11, 1987	JUL 14, 1987	1000	1500	1			97.0	89.22	
000074416	AF02336	PR	02	01	SEP 8, 1987	AUG 11, 1987	1030	1000	1			60.0	78.54	
000074435	AF02357	PR	02	01	OCT 6, 1987	SEP 8, 1987	1430	1030	1			107.0	69.95	
000074444	AF02407	PR	02	01	NOV 3, 1987	OCT 6, 1987	1030	1430	1			60.0	5.80	
000074453	AF02412	PR	02	01	DEC 1, 1987	NOV 3, 1987	1015	1030	3			35.5	3.47	
000074464	AF02447	PR	02	01	DEC 29, 1987	DEC 1, 1987	0000	1015	3			70.2	4.26	
SAMPLE NUMBER	FIELD COMMENTS	OFFICE COMMENTS	VOLUME ML	CONDUCT	LAB.PH	ACIDITY.TFE	SULFATE	NITRATE	CALCIUM					
				UHMO/CM			MG/L	MG/L	MG/L					
000074297	P		675	32.20	4.32	****	2.40	0.69	0.32					
000074313			116	57.00	7.19	****	6.90	2.20	5.70					
000074323			520	21.60	4.73	****	2.40	0.97	0.98					
000074339	G		1265	32.84	4.34	****	3.70	0.57	0.56					
000074361			674	57.07	4.56	****	12.70	1.90	3.26					
000074377			774	46.45	4.05	****	6.25	0.65	0.60					
000074392			2607	46.50	4.04	****	5.10	0.70	0.30					
000074407			2810	50.00	4.12	****	5.65	0.70	0.62					
000074416	CDP	M	1530	72.50	7.68	****	6.30	0.67	0.60					
000074435	AF	G	2430	74.00	3.88	****	7.95	1.10	0.74					
000074444	G	H	113	27.00	4.42	****	3.70	0.76	D					
00063786	G	X	40	INR	****	****	INR	INR	1.00					
00074464	G	X	97	****	****	****	****	****	****					

PART VIII

QUÉBEC INTERCOMPARISON SITE LISTINGS

ONTARIO MINISTRY OF THE ENVIRONMENT
 APLOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 DATA LISTING
 CUMULATIVE SAMPLING ANALYSIS RESULTS

REGION-2 STATION-SUBSTN MIC TYPE A SITE NO.1															
SAMPLE NUMBER	SUBMISSION LIS TYPE	PROJECT SUB CODE	SAMPLE REMOVAL DATE	EXPOSURE DATE	SAMPLE END HR	START TYPE	PREC. AT	PREC. AT	PREC. AT	GAUGE DEPTH (MM)	EFFICIENCY %				
SAMPLE NUMBER	SUBMISSION LIS TYPE	PROJECT SUB CODE	SAMPLE REMOVAL DATE	EXPOSURE DATE	SAMPLE END HR	START TYPE	PREC. AT	PREC. AT	PREC. AT	GAUGE DEPTH (MM)	EFFICIENCY %				
000075075	AP02121	PR 02 01	JAN 31, 1987	DEC 30, 1986	1305	1040	2	1	2	80.0	65.68				
000075090	AP02135	PR 02 01	FEB 24, 1987	JAN 31, 1987	1035	1315	2	1	2	26.0	76.41				
000075104	AP02173	PR 02 01	MAR 24, 1987	FEB 24, 1987	1114	1050	3		2	36.0	72.55				
000075119	AP02190	PR 02 01	APR 21, 1987	MAR 24, 1987	1000	1125	3		2	4.1	172.03				
000075133	AP02219	PR 02 01	MAY 19, 1987	APR 21, 1987	0920	1015	3		9	32.8	151.36				
000075155	AP02238	PR 02 01	JUN 16, 1987	MAY 19, 1987	1130	0940	1		9	102.5	140.57				
000075173	AP02255	PR 02 01	JUL 14, 1987	JUN 16, 1987	0815	1130	1		9	69.3	55.33				
000075188	AP02279	PR 02 01	AUG 11, 1987	JUL 14, 1987	0940	0945	1		9	113.6	38.64				
000075203	AP02321	PR 02 01	SEP 8, 1987	AUG 11, 1987	0900	0940	1		1	38.0	70.35				
000075225	AP02346	PR 02 01	OCT 6, 1987	SEP 8, 1987	0935	0915	3		2	157.0	89.30				
000075240	AP02374	PR 02 01	NOV 3, 1987	OCT 6, 1987	1005	0955	3	1	1	71.0	96.39				
000075262	AP02397	PR 02 01	DEC 1, 1987	NOV 3, 1987	0940	1020	3		9	90.9	100.06				
000075287	AP02439	PR 02 01	DEC 29, 1987	DEC 1, 1987	1055	0950	3	1	9	52.1	69.11				
SAMPLE FIELD COMMENTS												NITRATE		CALCIUM	
VOLUME												MG/L		MG/L	
UMHO/CM												MG/L		MG/L	
000075075	2	1706	17.60	4.53	****		0.95		0.42		0.14				
000075090	2	645	37.80	4.08	****		1.70		1.05		0.16				
000075104		848	14.00	4.47	****		1.30		0.26		0.10				
000075119	C	229	8.00	3.90	****	UG	4.55		1.06		0.14				
000075133	IFA	1614	36.50	4.32	****		5.15		0.83		UG				
000075155	Q	4678	53.56	7.52	****		4.95		0.46		0.18				
000075173	DCA	1245	30.40	UG	7.22	****	3.40		0.40		<T				
000075188	C	1425	24.90	4.30	****		2.80		0.05		0.12				
000075203		868	22.00	4.49	****		2.30		0.28		0.30				
000075225		4552	15.00	4.54	****		1.45		0.25		0.12				
000075240	M	2222	28.00	4.34	****		1.90		0.57		<T				
000075262		2953	24.00	4.46	****		1.85		0.35		0.32				
000075287	A	1169	32.50	4.14	****		1.90		0.82		0.18				

ONTARIO MINISTRY OF THE ENVIRONMENT
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
DATA LISTING

CUMULATIVE SAMPLING ANALYSIS RESULTS

REGION-2 STATION-SUTTON MIC TYPE A SITE NO.1

SAMPLE NUMBER	CHLORIDE MG/L	KJELDAHL MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	PHOSPHOR MG/L	MANGANESE MG/L
00075075	0.16	0.300	<T	0.005	<T	0.025	0.070	0.235
00075090	0.30	0.430	<T	0.015	<T	0.020	0.135	0.355
00075104	0.09	0.140	<T	0.010	<T	0.010	0.065	0.055
00075119	0.38	0.760	0.025	0.040	0.195	0.410	0.020	0.005
00075133	0.21	0.950	UG	0.200	0.065	0.090	0.760	0.004
00075133	0.42	1CR	0.030	U	0.790	0.225	U	0.029
00075135	0.30	5.650	<T	0.010	0.410	0.025	U	0.003
00075173	0.05	0.350	<T	0.020	<T	0.015	UG	0.001
00075188	<T	0.270	0.040	<T	0.005	<W	0.290	<
00075203	0.06	0.170	<T	0.015	<T	0.015	0.230	0.009
00075225	0.11	0.270	<T	0.015	0.035	0.030	<T	0.002
00075240	0.25	0.530	<T	0.010	<W	0.005	0.155	0.003
00075262	0.20	0.210	<T	0.030	0.065	0.025	0.180	0.002
00075287	0.20	0.210	<T	0.010	0.065	0.025	0.325	0.003
00075287	0.20	0.210	IRON	LEAD	0.150	0.006	<T	0.006
00075287	0.20	0.210	0.010	0.010	0.095	0.150	<T	0.003
00075075	<	0.0002	0.010	0.003	0.008	0.014	0.009	50.40
00075090	<	0.0002	0.010	0.003	0.008	0.014	0.009	105.00
00075104	0.0002	UG	0.014	0.022	0.004	0.030	1DT	0.0006
00075119	0.0004	1DT	0.003	1DT	0.002	0.010	1DT	0.0004
00075133	0.0011	0.009	0.043	1DT	0.005	0.004	1DT	0.0010
00075135	0.0005	0.012	0.055	1DT	0.005	0.001	UG	0.0045
00075135	0.0005	0.012	0.054	1DT	0.002	0.004	UG	0.0095
00075173	<	0.0002	0.023	1DT	0.002	0.004	0.067	29.80
00075188	<	0.002	0.001	1DT	0.002	0.004	0.024	24.60
00075203	<	0.0002	0.014	1DT	0.002	<	0.009	74.10
00075225	<	0.0002	0.019	0.008	<	0.004	1DT	0.0008
00075240	0.0002	1DT	0.005	0.007	0.004	0.029	1DT	0.0005
00075262	0.0004	1DT	0.001	0.010	0.015	0.007	0.005	57.10
00075287	<	0.0002	0.009	0.013	0.004	0.015	0.007	78.50
00075287	<	0.0002	0.001	0.004	<	0.004	1DT	0.0007
00075287	<	0.0002	0.008	0.006	0.005	0.007	1DT	0.0005

*2

